

ESD-TDR-64-340

ESTI PROCESSED☐ ODC TAB ☐ PROJ OFFICER☐ ACCESSION MASTER FILE☐

DATE _____

ESTI CONTROL NR. _____

43501

CY NR. _____

OF _____

CYB

Prepared under Electronic Systems Division
Contract AF 19(628)-500 by

Lincoln Laboratory

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

UNCLASSIFIED PUBLICATIONS
OF
LINCOLN LABORATORY

15 March 1964

**ESD RECORD COPY**

RETURN TO
SCIENTIFIC & TECHNICAL INFORMATION DIVISION
(ESTI), BUILDING 1211

COPY NR. _____ OF _____ COPIES

ADD 607539

UNCLASSIFIED PUBLICATIONS

OF

LINCOLN LABORATORY

15 MARCH 1964

Requests for information concerning Lincoln Laboratory reports listed herein should be directed to:

Lincoln Laboratory
Massachusetts Institute of Technology
Box 73
Lexington, Massachusetts 02173
Attention: Publications, L-356

The work listed in this bibliography was performed at Lincoln Laboratory, a center for research operated by Massachusetts Institute of Technology, with the support of the U. S. Air Force under Contract AF 19(628)-500; in some cases, the work was supported under other contracts.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

LINCOLN LABORATORY

LEXINGTON, MASSACHUSETTS

Unclassified Publications of Lincoln Laboratory, 15 March 1964, is a new cumulative listing of unclassified reports published since the Laboratory was established in 1951. The 15 July 1961 edition of Unclassified Publications, as well as Supplements 1, 2, and 3, may now be destroyed.

A Subject Index, included for the first time in this edition, should prove a valuable aid to the reader.

Progress Reports, Technical Reports and Group Reports listed herein are deposited with DDC. Out-of-print unclassified (released) reports are available, as microfilm or photoprint copies, from the Microreproduction Laboratory, Hayden Memorial Library, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139. Requests should cite the appropriate serial numbers and prices.

Accepted for the Air Force
Franklin C. Hudson, Deputy Chief
Air Force Lincoln Laboratory Office

TABLE OF CONTENTS

Quarterly Progress Reports	1
Semiannual Technical Summary Reports to Advanced Research Projects Agency	7
Technical Reports	9
Group Reports	29
Journal Articles	65
Meeting Speeches	135
Reports Prepared for Lincoln Laboratory	157
Lincoln Laboratory Publications	161
Lincoln Laboratory Monographs	161
Abstracts	161
Special Reports	162
Lincoln Laboratory Library Reference Bibliographies	163
Lincoln Laboratory Library Quick Searches	165
Index of Lincoln Laboratory Authors	167
Subject Index	181

KEY TO SYMBOLS

*	Joint report
†	Out of print
‡	Partial support under other contract
§	Consultant or non-Lincoln author
¶	Limiter
R	Reprints available
H	Hayden Library serial number
M	Microfilm
P	Photoprint

QUARTERLY PROGRESS REPORTS

DIVISION 2

SYSTEMS

DATA SYSTEMS

	<u>DDC No.</u>		<u>DDC No.</u>
15 November 1961	269861	15 May 1963	406287
15 February 1962	272957	15 August 1963	417672
15 May 1962	275471	15 November 1963	425576
15 August 1962	283494	15 February 1964	432493
15 November 1962	289815		
† 15 February 1963	297789		

DIVISION 3 RADIO PHYSICS

DIVISION 4 RADAR

	<u>DDC No.</u>		<u>DDC No.</u>
15 January 1962	271953	15 February 1962	273507
15 April 1962	275470	15 May 1962	276045
15 July 1962	283035	15 November 1962	291103
15 October 1962	289814	15 February 1963	298907
† 15 January 1963	296492	15 May 1963	408676
15 April 1963	414694	15 September 1963	422233
15 August 1963	417499	15 December 1963	429499
15 November 1963	425670	15 March 1964	435689
15 February 1964	433769		

Quarterly Progress Reports

DIVISION 5 INFORMATION PROCESSING

	<u>DDC No.</u>	<u>Hayden Serial and Prices</u>		
† 15 September 1959	231801	H-223	M \$1.50	P \$25.30
† 15 December 1959	233920	H-139	1.50	24.10
† 15 March 1960	237551	H-126	1.50	24.40
15 June 1960	242284			
15 September 1960	247050			
15 December 1960	252199			
† 15 March 1961	256371	H-443	1.50	12.65
† 15 June 1961	260633	H-442	1.50	13.90
† 15 September 1961	263607	H-441	1.50	4.90
† 15 December 1961	268698	H-450	1.50	3.90
† 15 March 1962	273508	H-440	1.50	4.65
† 15 June 1962	277562	H-439	1.50	5.15
† 15 September 1962	285165	H-438	1.50	7.40
† 15 December 1962	294454			
15 March 1963	401494			

DIVISION 6 SPACE COMMUNICATIONS

	<u>DDC No.</u>
15 September 1963	424909
15 December 1963	431198
15 March 1964	434292

Quarterly Progress Reports

DIVISION 7 ENGINEERING DESIGN AND TECHNICAL SERVICES

	<u>DDC No.</u>		<u>DDC No.</u>
† 15 November 1952	6517	† 15 January 1956	95753
† 15 February 1953	11806	† 15 April, 15 July, 15 October 1956	13605
† 15 May 1953	17084	† 15 January 1957	13606
† 15 August 1953	20379	† 15 April 1957	147497
† 15 November 1953	25815	† 15 July 1957	151240
† 15 April 1954	33860	† 15 October 1957	110031
† 15 July 1954	39058	† 15 January 1958	110048
† 15 October 1954	50617	† 15 April 1958	133859
† 15 January 1955	64031	† 15 July 1958	303131
† 15 April 1955	68882	† 15 October 1958	304361
† 15 July 1955	72814	† 15 January 1959	305154
† 15 October 1955	83347		

DIVISION 7 ENGINEERING

	<u>DDC No.</u>		<u>DDC No.</u>
† 15 April 1959	222823	15 January 1962	270736
† 15 July 1959	222824	15 April 1962	280714
15 October 1959	315534	15 July 1962	282388
15 January 1960	315680	15 October 1962	287558
15 April 1960	317928	15 January 1963	294972
15 July 1960	319819	15 April 1963	404456
15 October 1960	249920	15 July 1963	413873
15 January 1961	253840	15 September 1963	425923
15 April 1961	258076	15 December 1963	429957
15 July,		15 March 1964	435524
15 October 1961	274523		

Quarterly Progress Reports

DIVISION 8 SOLID STATE

	<u>DDC No.</u>	<u>Hayden Serial and Prices</u>		
15 January 1962	270511			
15 April 1962	281678	H-399	M\$1.50	P\$3.15
15 July 1962	282145	H-416	1.50	2.15
15 October 1962	287199	H-435	1.50	4.40
15 January 1963	295737	H-470	1.50	2.40
15 April 1963	404496	H-502	1.50	2.20
15 July 1963	412949	H-541	1.50	2.20
15 October 1963	422429	H-547	1.50	2.20
15 January 1964	429866	H-574	1.50	3.00

Quarterly Progress Reports

TRANSISTORS AND SOLID STATE

Group 35

DDC No.

Hayden Serial and Prices

† 1 October 1952
 † 15 January 1953
 † 15 April 1953
 † 15 July 1953
 † 15 October 1953
 † 1 February 1954

28579

SOLID STATE RESEARCH

Group 35 - Transistors
 Group 37 - Ferrites

† 1 May 1954
 † 1 August 1954
 † 1 November 1954
 † 1 February 1955
 † 1 May 1955
 † 1 August 1955

41457
 41456
 53355
 62359
 70113
 79337

SOLID STATE RESEARCH

Group 35

† 1 November 1955
 † 1 February 1956
 † 1 May 1956
 † 1 August 1956
 † 1 November 1956
 † 1 February 1957
 † 1 May 1957

82483
 92623
 102207
 98859
 110008
 137607
 151262

SOLID STATE RESEARCH

Groups 35, 37, 310

† 1 August 1957

151261

SOLID STATE RESEARCH

Groups 35, 37, 310, 63, 24

† 1 November 1957

110024

H-5

M \$1.50

P \$34.05

Quarterly Progress Reports

SOLID STATE RESEARCH

	<u>DDC No.</u>	<u>Hayden Serial and Prices</u>		
† 1 February 1958	110037	H-14	1.50	29.70
† 1 May 1958	133853	H-13	1.60	33.70
† 1 August 1958	133866	H-601		
† 1 November 1958	204401	H-7	1.80	38.50
† 15 January 1959	215804	H-20	1.60	39.40
† 15 April 1959	214567	H-45	1.95	31.00
† 15 July 1959	226851	H-22	1.60	34.60
† 15 October 1959	231991	H-44	2.05	38.20
† 15 January 1960	234915	H-64	1.50	29.50
† 15 April 1960	239537	H-119	1.50	16.90
† 15 July 1960	243927	H-168	1.50	18.40
† 15 October 1960	249058	H-360	1.50	10.65
† 15 January 1961	254036	H-279	1.50	16.90
† 15 April 1961	257442	H-305	1.50	12.15
† 15 July 1961	262282	H-331	1.50	13.65
15 October 1961	266878	H-360	1.50	10.65

SOLID STATE RESEARCH

LINCOLN LABORATORY

	<u>DDC No.</u>	<u>Hayden Serial and Prices</u>		
1961:4	274072	H-391	M\$1.50	P\$22.40
1962:1	277393	H-406	1.50	13.40
1962:2	285456	H-428	1.50	12.15
1962:3	291546	H-457	1.50	19.65
1962:4	400709	H-491	1.50	12.65
1963:1	413089	H-517	1.50	11.80
1963:2	417686	H-539	1.50	7.20
1963:3	427340	H-554	1.50	7.80
1963:4	435023	H-573	1.50	8.80

SEMIANNUAL TECHNICAL SUMMARY REPORTS TO ADVANCED RESEARCH PROJECTS AGENCY

REENTRY PHYSICS PROGRAM

	<u>DDC No.</u>	<u>Hayden Serial and Prices</u>
† 1 Oct. 1958 to 30 June 1959	228431	H-125 M \$1.50 P \$38.80
† 31 Dec. 1959	234627	H-127 M \$1.50 P \$22.00
† 30 June 1960	241226	H-269 M \$1.50 P \$10.30
† 31 Dec. 1960	252669	H-276 M \$1.50 P \$11.80

REENTRY PHYSICS & PROJECT PRESS PROGRAMS

	<u>DDC No.</u>	<u>Hayden Serial and Prices</u>
† 30 June 1961	262543	H-361 M \$2.65 P \$35.90
† 31 Dec. 1961	273072	H-453 M \$2.05 P \$48.15
† 30 June 1962	283478	H-454 M \$1.80 P \$37.90

RADAR TECHNIQUES STUDY

	<u>DDC No.</u>	<u>Hayden Serial and Prices</u>
31 Dec. 1959	234063	
30 June 1960	241910	
† 31 Dec. 1960	251040	

HIGH-POWER TUBE PROGRAM

	<u>DDC No.</u>	<u>Hayden Serial and Prices</u>
31 Dec. 1959	234064	
30 June 1960	241412	
† 31 Dec. 1960	250687	
30 June 1961	260544	
† 31 Dec. 1961	270734	
† 30 June 1962	278675	
31 Dec. 1962	294963	
30 June 1963	411458	
30 Nov. 1963	425185	H-549 M \$1.50 P \$7.20

TECHNICAL REPORTS

TR No.				DDC No.	Hayden Serial and Prices
* 1	Ionospheric Scattering and Reflection	R. M. Whitmer	5 Dec. 1951	3311	
2	Some Mathematical Remarks on the Boolean Machine	I. S. Reed	19 Dec. 1951	165903	
3	Use of a Delay-Line Memory to Reduce Radar Pulse-Type Interference (Wildcatting)	T. F. Rogers L. A. Ames J. A. Dumanian	21 Feb. 1952	165380	
4	A Moving-Coordinate Radar Display: Operator Limitations	F. R. Naka B. B. Welles	20 Mar. 1952	165374	
* † 7	Noise-Like Signals and Their Detection by Correlation	B. L. Basore	26 May 1952	4641	
8	Results of Ground-Clutter- Elimination Experiments	R. H. Baker H. M. Elliott	30 June 1952	969	
9	A New Method of Teletype Modulation	D. J. Gray	22 Sept. 1952	928	
11	Wide-Deviation Frequency- Modulated Oscillator	D. J. Gray V. P. Gurske W. E. Morrow, Jr.	6 Aug. 1952	958	
† 12	Boolean Functions of a Real Variable and Its Applications to a Model of the Digital Com- puter and Discrete Probability	I. S. Reed	14 Aug. 1952	968	
† 13	An Analysis of the Detection of Repeated Signals in Noise by Binary Integration	J. V. Harrington	14 Aug. 1952	949	
† 14	An Application of Matrix Theory to the Tracking and Smoothing Equations	I. S. Reed G. P. Dinneen	3 June 1953	19276	H-31 M \$1.50 P \$6.40
15	Symbolic Synthesis of Digital Computers	I. S. Reed	17 Oct. 1952	2230	
† 16	The Measurement of Frequency Modulation in Pulse Magnetrons with a Microwave Interferometer	J. J. G. McCue	16 Oct. 1952	11811	
18	An Analytic Study of the Symmetric P-N Junction in Semiconductors	L. Bess	14 Nov. 1952	17010	

Technical Reports

TR No.				DDC No.	Hayden Serial and Prices
19	Use of H Field Coupling in Directional Couplers	C. W. Jones	5 Mar. 1953	17081	
† 20	An Analysis of Signal Detection by the Sequential Observer	I. S. Reed	12 Mar. 1953	17082	H-16 M \$1.50 P \$9.70
† 21	Correlation Analysis of VHF Signals	A. J. Lephakis	18 May 1953	11808	
† 22	Signal-to-Noise Improvement through Integration in a Delay- Line Filter System	J. Freedman J. Margolin	13 May 1953	19279	H-291 M \$1.50 P \$3.65
23	PPI Light-Spot-Brightness Probability Distributions	G. C. Sponsler F. L. Shader	17 June 1953	20232	
†† 24	Automatic-Alarm Radar for PROJECT COUNTER CHANGE (Final Technical Report)	H. G. Weiss F. R. Naka J. Freedman W. P. Harris J. W. Meyer J. F. Bennett	4 Aug. 1953	20233	
* 25	Some Notes on Transistor Circuits	R. B. Adler M. Boisvert C. R. Hurtig S. J. Mason	6 Jan. 1953	17007	
26	The Lower Modes of a Concentric Line Having a Helical Inner Conductor	L. Stark	2 July 1953	19277	
† 27	The Transient Response of Transistor Switching Circuits	I. L. Lebow R. H. Baker R. E. McMahon	7 July 1953	21107	H-25 M \$1.50 P \$7.60
28	A Waveguide-Coax Hybrid Junction	C. W. Jones	14 July 1953	20234	
31	Matching Filtered and Unfiltered Displays	B. F. Green, Jr.	27 July 1953	25812	
32	Transistor Shift Registers	R. H. Baker I. L. Lebow R. E. McMahon	30 July 1953	19278	
33	Correlation Detection Using Stored Signals	P. E. Green, Jr.	4 Aug. 1953	20524	
* † 34	Statistical Theory Applied to Communication through Multipath Disturbances	R. Price	3 Sept. 1953	28497	H-374 M \$1.50 P \$10.65

Technical Reports

TR No.				DDC No.	Hayden Serial and Prices
† 35	The Statistical Theory of Detection. I: Optimum Detection of Signals in Noise	D. Middleton	2 Nov. 1953	30080	H-17 M \$1.50 P \$23.20
† 36	The Time Required to Search for Numbers on Large Visual Displays	B. F. Green, Jr. W. J. McGill H. M. Jenkins	18 Aug. 1953	21109	
37	Theory of Radio Transmission by Tropospheric Scattering Using Very Narrow Beams	H. G. Booker § J. T. deBettencourt	16 June 1954	37146	
† 38	Normal Tropospheric Propagation of Short Radio Waves Well Beyond the Horizon	T. J. Carroll R. M. Ring	12 Feb. 1954	33890	
39	Coding for Constant-Data-Rate Systems. Part I. A New Error-Correcting Code	R. A. Silverman M. Balser	23 Oct. 1953	28496	
40	A Theory of Magnetic-Domain Creation and Flux Reversal in Polycrystalline, Ferromagnetic Materials	J. B. Goodenough N. Menyuk	6 Nov. 1953	28494	
41	Jamming Tests on NOMAC Systems	B. M. Eisenstadt P. L. Fleck, Jr. O. G. Selfridge C. A. Wagner	25 Sept. 1953	20419	
42	An Ultrasonic Continuously Variable Delay Line	W. P. Schneider	22 Sept. 1953	21110	
43	Isolation of Trace Quantities of Arsenic from Germanium Samples by Solvent Extraction	M. Green J. A. Kafalas J. Lowen	2 Mar. 1954	30161	
† 44	A Class of Multiple-Error-Correcting Codes and the Decoding Scheme	I. S. Reed	9 Oct. 1953	25814	H-15 M \$1.50 P \$5.50
47	Performance on a Visual Monitoring Task as a Function of the Rate at Which Signals Occur	H. M. Jenkins	29 Oct. 1953	28492	
48	Coding for Constant-Data-Rate Systems. Part II. Multiple-Error-Correcting Codes	M. Balser R. A. Silverman	23 Feb. 1954	30162	
49	Speed and Accuracy of Reading Polar Coordinates on a Horizontal Plotting Table	B. F. Green, Jr. L. K. Anderson	11 Dec. 1953	28491	

Technical Reports

TR No.				DDC No.	Hayden Serial and Prices
† 50	A Practical Method of Designing RC Active Filters	R. P. Sallen E. L. Key	6 May 1954	40828	H-9 M \$1.50 P \$7.75
51	Folded Unipole Antennas	J. Leonhard R. D. Mattuck A. J. Poté	2 July 1954	39059	
54	Magnetostriction Filters	H. M. Elliott	4 Aug. 1954	47800	
55	Bandwidth of Microwave Ferrite Devices	R. H. Fox	11 Aug. 1954	40830	
† 56	Comparative Performance of 10-cm and 70-cm Radar Over the Sea	J. Freedman M. M. Kessler V. L. Lynn D. A. McKee W. W. Ward	25 Aug. 1954	42667	
† 57	Probability of Error in NOMAC Systems	G. L. Turin	18 Jan. 1954	30163	
58	Electrostatic Potential Dis- tribution for the Helically Wound Postdeflection Accel- erator of a Conical Cathode- Ray Tube	G. C. Sponsler	20 Jan. 1954	30164	
59	A Helical-Line Phase Shifter for Ultra-High Frequencies	L. Stark	4 Feb. 1954	30165	
60	Tables of $n \log_2 n$ and $n \log_{10} n$ for n from 1 to 1000	G. A. Miller P. M. Ross	10 Feb. 1954	33889	
61	Storage-Tube Slowed-Down Video System	E. W. Bivans S. P. Detwiler J. V. Harrington	15 Mar. 1954	30166	
63	Modifications to the AN/CPS-18 Radar	R. R. Fidler R. T. McCoy F. L. Niemann	15 Apr. 1954	34615	
64	An Automatic Electron- Trajectory Tracer Study of Helix- and Band-Type Postdeflection Acceleration	G. C. Sponsler	26 May 1954	40827	
65	Extension of Nonreciprocal Ferrite Devices to the 500- to 3000-Mcps Frequency Range	R. H. Fox B. Lax	3 Sept. 1954	47921	
† 67	A Common Co-ordinate System for the Utilization of Data from Several Radars	D. Goldenberg § E. W. Wolf	13 Sept. 1954	50611	H-18 M \$1.50 P \$16.60

Technical Reports

TR No.				DDC No.	Hayden Serial and Prices
68	A Nonreciprocal Four-Pole Ring Circuit	R. H. Fox	17 Sept. 1954	47799	
69	Ferrite Devices and Applications at Microwave Frequencies	R. H. Fox	27 Sept. 1954	64026	
† 70	Microwave Susceptibility Measurements in Ferrites	J. O. Artman P. E. Tannenwald	27 Oct. 1954	56356	H-1 M \$1.50 P \$7.25
71	Ferromagnetic Resonance in Manganese Ferrite Single Crystal	P. E. Tannenwald	30 Sept. 1954	50604	
72	Characteristics and Capabilities of Automatic Alerting Radar X-3	H. G. Weiss F. R. Naka	15 Oct. 1954	55745	
† 73	Some Queue Processes Associated with Buffer-Storage Systems	I. S. Reed	2 Dec. 1954	56355	H-396 M \$1.50 P \$6.40
74	A Punch-Card Abstract File on Solid State and Transistor Literature	L. D. Patterson	12 Jan. 1955	64029	
† 75	Some Results in the Study of Narrow-Band Gaussian Noise	R. Price	26 Jan. 1955	64030	
76	Final Report on the Phoenix Facsimile System	R. M. Whitehorn	13 June 1955	72815	
* 80	1/f Noise and Related Surface Effects in Germanium	A. L. McWhorter	20 May 1955	64023	
* 81	Investigations of Scattering and Multipath Properties of Ionospheric Propagation at Radio Frequencies Exceeding the MUF	W. G. Abel J. T. deBettencourt J. F. Roche J. H. Chisholm	3 June 1955	76494	
† 82	A Bistatic CW Radar	E. A. Sloane E. S. Candidus J. Salerno M. Skolnik	6 June 1955	76454	
83	18-Mcps Field-Strength Measurements Over Sea Water	S. J. Fricker R. P. Ingalls W. T. Quinn M. L. Stone C. A. Stutt	14 June 1955	76455	

Technical Reports

TR No.				DDC No.	Hayden Serial and Prices
84	Investigations of Angular Scattering and Multipath Properties of Tropospheric Propagation of Short Radio Waves Beyond the Horizon	J. H. Chisholm P. A. Portmann J. T. deBettencourt J. F. Roche	26 Sept. 1955	85995	
85	Effects of Dislocations in Germanium and Silicon	A. D. Kurtz	13 July 1955	76495	
86	Project Caterpillar Antenna Measurements	S. J. Fricker R. P. Ingalls W. T. Quinn M. L. Stone C. A. Stutt	22 Dec. 1955	92635	
89	Theory of Ferrites in Rectangular Waveguides	K. J. Button B. Lax	1 Aug. 1955	70106	
91	UHF Long-Range Communications Systems	G. L. Meilen W. E. Morrow, Jr. A. J. Poté W. H. Radford J. B. Wiesner	5 Aug. 1955	80774	
92	Some Remarks on Statistical Detection	W. L. Root T. S. Pitcher	10 Aug. 1955	85993	
93	Phase and Amplitude Variability in Medium-Frequency Ionospheric Transmission	D. G. Brennan M. L. Phillips §	16 Sept. 1957	110016	
†95	Several Binary Sequence Generators	N. Zierler	12 Sept. 1955	89135	II-230 M \$1.50 P \$4.30
98	Transistorized Communication Receiver	S. Schwartz	4 Nov. 1955	80773	
99	Comparison of Signal and Noise in Full-Wave and Half-Wave Rectifiers	M. D. Rubin J. M. Stacey	30 Nov. 1955	85994	
100	Transistor Slowed-Down Video System	R. H. Baker R. E. McMahon A. J. Yakutis	22 Dec. 1955	92634	
101	An Investigation of a 2-Mcps Ground-Wave Radar for Ship Detection	J. T. deBettencourt D. J. Gray	13 Dec. 1955	90351	
102	Designing for Reliability	N. H. Taylor	9 Dec. 1955	93756	
†103	Some Notes on Jamming, I	W. L. Root	3 Jan. 1956	90352	

Technical Reports

TR No.				<u>DDC No.</u>	<u>Hayden Serial and Prices</u>
104	Random-Access PPI	E. W. Bivans B. Cohen R. W. Hofheimer K. E. Perry J. Terzian R. V. Wood, Jr.	24 Feb. 1956	92633	
106	Transistor Regulated Power Supplies	F. G. Popp	19 Jan. 1956	92621	
107	Some Fundamental Principles of Coherent MTI and AMTI	W. W. Ward W. B. Renhult	3 May 1956	100288	
110	Maximum Efficiency Transistor Switching Circuits	R. H. Baker	22 Mar. 1956	96497	
111	Characteristics of Simple Manual Control Systems	J. I. Elkind	6 Apr. 1956	94646	
112	Analysis of Freezing Precipitation Along the Eastern North American Coastline	J. M. Austin § S. L. Hensel	23 Mar. 1956	96755	
113	Broad-Band Balanced Duplexers	C. W. Jones	5 Apr. 1956	100287	
† 114	Markov-Process Representation of Radar Detection-Trial Binary-Data Sequences	G. C. Sponsler	16 Apr. 1956	100289	H-216 M \$1.50 P \$17.50
115	Galvanomagnetic Effects in n-Type Germanium	W. M. Bullis	14 May 1956	96499	
116	Communication Through Noisy, Random-Multipath Channels	G. Turin	14 May 1956	96500	
117	The Design of Characters for the Charactron	W. P. Harris B. F. Green, Jr. E. A. Wilson L. H. Liaudansky	8 May 1956	101142	
119	Some Experiments with Three-Pulse Cancellation and with Sweep Integration	J. J. G. McCue	8 June 1956	103579	
120	Symmetrical Back-Clamped Transistor Switching Circuits	R. H. Baker R. E. McMahon F. L. McNamara A. C. Parker V. J. Sferrino H. A. Ullman	5 May 1956	101141	
123	A Mathematical Model for the Radar Echo from a Random Collection of Scatterers	E. J. Kelly E. C. Lerner	15 June 1956	104260	

Technical Reports

TR No.				DDC No.	Hayden Serial and Prices
124	The Suggested Role of Stratified Elevated Layers in Trans-Horizon Short-Wave Radio Propagation	J. R. Bauer	24 Sept. 1956	110003	
† 129	The Prediction of Ballistic Missile Trajectories from Radar Observations	I. I. Shapiro	27 Feb. 1957	110025	
130	High-Speed Graded-Base-Transistor Switching Circuits	R. H. Baker E. J. Chatterton A. C. Parker	10 Dec. 1957	110030	
132	On Meteor Echoes from Underdense Trails at Very High Frequencies	M. Loewenthal	13 Dec. 1956	137608	
† 133	Transistor Core Memory	R. E. McMahon F. L. McNamara	13 Nov. 1956	110010	H-485 M \$1.50 P \$6.15
134	Preliminary Report on Ground-Wave-Radar Sea Clutter	C. A. Stutt S. J. Fricker R. P. Ingalls M. L. Stone	21 Sept. 1956	110004	
135	Topics in the Design of Antennas for Scatter	J. Granlund	23 Nov. 1956	110001	
136	Classical Boltzmann Theory of Cyclotron Resonance	H. J. Zeiger B. Lax R. N. Dexter	4 Oct. 1956	110005	
137	Punch-Thru Diode (Operation as a Narrow-Base Diode)	R. H. Rediker D. E. Sawyer	27 Nov. 1956	110011	
138	Circular Polarization for the AN/CPS-18 Antenna	F. L. Niemann J. P. Curtis	7 Jan. 1957	137609	
† 139	Logical Design of CG 24 (A General-Purpose Computer)	G. P. Dinneen J. A. Dumanian I. L. Lebow I. S. Reed P. B. Sebring	15 Apr. 1957	147496	H-19 M \$1.50 P \$15.40
141	Symbolic Design Techniques Applied to a Generalized Computer	I. S. Reed	3 Jan. 1957	110009	
142	High-Power RF Switch	L. J. Ricardi	10 Dec. 1956	110006	
143	Electromagnetic Propagation Effects in Ferromagnetic Resonance	M. H. Seavey P. E. Tannenwald	16 Jan. 1957	137610	

Technical Reports

TR No.				DDC No.	Hayden Serial and Prices
144	Analysis of Wet-Snow Precipitation Along the Eastern North American Coastline	J. M. Austin § S. L. Hensel	25 Jan. 1957	137711	
146	High-Power TR Switch Development at UHF	R. E. Slattery	25 Jan. 1957	137712	
150	Some Studies on Group III-V Intermetallic Compounds	C. R. Kolm	20 Feb. 1957	137716	
151	Proposal for Improving Tropospheric Propagation	L. J. Eyges	1 Mar. 1957	137717	
152	Hahn Decompositions and Hypothesis Tests	I. S. Reed E. J. Kelly D. H. Lyons	4 Mar. 1957	137718	
153	Optical Memory Panels	W. L. Gardner D. B. Barker M. D. Zimmerman	7 Mar. 1957	137719	
† 154	Some Pulse-Doppler Radar- Design Considerations	R. E. Richardson	12 Aug. 1957	150863	H-482 M \$1.50 P \$5.40
155	A Fixed-Gap UHF TR Tube	C. W. Jones C. E. Muehe S. J. Miller	29 Mar. 1957	147407	
156	Transistorized Matched Filter for Pulsed Sinusoids	P. L. Fleck, Jr.	12 Apr. 1957	147492	
† 157	Some Properties of Stationary Gaussian Processes	E. J. Kelly I. S. Reed	5 June 1957	150864	H-468 M \$1.50 P \$3.40
† 158	The Detection of Radar Echoes in Noise. Part I: Statistical Preliminaries and Detector Design	I. S. Reed E. J. Kelly W. L. Root	20 June 1957	150865	H-238 M \$1.50 P \$7.90
† 159	The Detection of Radar Echoes in Noise. Part II: The Accuracy of Radar Measurements	I. S. Reed E. J. Kelly W. L. Root	19 July 1957	150866	H-215 M \$1.50 P \$8.80
160	Ultrasonic-Delay-Line Ter- minating Circuits and Passband Measurements	M. Axelbank	12 July 1957	150867	
† 161	A Search for Means to Detect Distant Low-Flying Aircraft	E. W. Pike	18 July 1957	150868	H-28 M \$1.95 P \$33.60

Technical Reports

TR No.				DDC No.	Hayden Serial and Prices
162	Digital-Analog Function Generators	R. W. Hofheimer K. E. Perry	23 Aug. 1957	150869	
164	The Chemical Analysis of Manganese-Magnesium Ferrite (Memory-Core Material)	D. G. Wickham	23 Aug. 1957	150870	
*† 165	Computer Techniques for the Study of Patterns in the Electroencephalogram	B. G. Farley L. S. Frischkopf W. A. Clark, Jr. J. T. Gilmore, Jr.	6 Nov. 1957	110027	H-2 M \$1.50 P \$5.75
* 166	On the Statics and Dynamics of Magnetic Domain Boundaries	J. V. Harrington	13 Jan. 1958	110028	
167	Parabolic-Cylinder Reflector Patterns	R. L. Pease	13 Nov. 1957	110029	
168	On the Reciprocity of Rays Propagated Through a Hori- zontally Stratified Ionosphere	D. H. Archer	18 Dec. 1957	110032	
169	A Broad-Band UHF Amplifier and Mixer	J. H. Phillips E. Maxwell	27 Dec. 1957	110033	
170	A 64-Pole RF Coaxial Switch	L. J. Ricardi B. F. LaPage	3 Jan. 1958	110035	
171	An FM MTI Cancellation System	D. A. McKee	8 Jan. 1958	110036	
172	Analysis of Some Detection Criteria for Pulse Radar	E. J. Kelly D. H. Lyons H. M. Jones I. S. Reed	24 Jan. 1958	110039	
174	Straight Tapers in Rectangular Waveguides	T. J. Rey	10 Feb. 1958	110041	
176	Theory of Nonreciprocal Ferrite Phase Shifters in Dielectric- Loaded Coaxial Line	K. J. Button	7 Mar. 1958	110044	
177	One-Megacycle Silicon Tran- sistor Circuits Applicable to Airborne Digital Systems	V. J. Sferrino W. G. Schmidt	10 Mar. 1958	110045	
178	Elimination of a Type of Natural Clutter in L-Band Radars	R. E. Richardson J. M. Stacey H. M. Kohler F. R. Naka	15 Apr. 1958	133851	
179	Semiconductor Delay Lines	J. J. G. McCue	15 Apr. 1958	110050	
181	Effects of the Filter in Oscillator Synchronization	T. J. Rey	14 May 1958	133854	

Technical Reports

TR No.				DDC No.	Hayden Serial and Prices
182	The Local Behavior of Solutions of the Two-Body Problem and Related Problems	J. J. Levin	16 June 1958	133855	
183	The Stewart Air Force Base to North Truro Tropospheric-Scatter Communication System	G. L. Mellen D. H. Hamilton, Jr. J. P. Kelly W. E. Morrow, Jr.	18 July 1958	133863	
184	Paraboloidal Reflector Patterns	R. L. Pease	5 Aug. 1958	133862	
185	Final Engineering Report on Parabolic Torus Antenna System	L. J. Ricardi M. E. Devane	7 Aug. 1958	222288	
† 186	Radio Refraction in a Cool Exponential Atmosphere	J. R. Bauer W. C. Mason F. A. Wilson	27 Aug. 1958	202331	H-344 M \$1.50 P \$6.15
† 187	Characteristics of Moon-Reflected UHF Signals	S. J. Frieker R. P. Ingalls W. C. Mason M. L. Stone D. W. Swift	22 Dec. 1958	204519	H-3 M \$1.50 P \$16.00
188	Digital Rate Synthesis for Frequency Measurement and Control	T. J. Rey	30 Oct. 1958	205596	
189	Doppler Phase-Difference Integrator	G. M. Hyde K. E. Perry	12 Nov. 1958	206258	
190	Twilight Region Propagation of Short Radio Waves by Modes Contained in the Normal Air	T. J. Carroll R. M. Ring	31 Oct. 1958	210005	
† 191	The Automatic Design of Logical Networks	T. C. Bartee	3 Dec. 1958	207170	H-27 M \$1.50 P \$8.50
192	The Conductance of a Slot in an Array Antenna	S. J. Rabinowitz	31 Dec. 1958	209908	
193	Final Technical Report – Antenna and RF Circuit Design – Millstone Hill Radar	P. C. Fritsch	7 Jan. 1959	221688	
194	Curved-Earth Computations for Airborne Early Warning and Control	N. Durlach A. Carpenter M. A. Herlin	13 Jan. 1959	210006	
195	On $\sin x/x$ Sampling in the Case of Non-Band-Limited Functions	K. R. Johnson	16 Feb. 1959	211215	

Technical Reports

TR No.				DDC No.	Hayden Serial and Prices
† 197	The Magnetic Properties of Thin Films	J. B. Goodenough D. O. Smith	27 Jan. 1959	210730	H-26 M \$1.50 P \$13.00
198	Pressure Distribution, Sta- bility, and Restoring Torque of an Externally Pressurized Bearing	R. A. Greenberg	2 Feb. 1959	212979	
199	Transistor Life Experience: 1954 - 1958	D. J. Eckl P. A. Fergus R. L. Burke	26 Mar. 1959	214565	
200	Preparation and Performance of Sintered CdS Photoconductors	R. R. Billups W. L. Gardner, Jr. M. D. Zimmerman	12 Mar. 1959	212580	
202	A Simple Null-Indicating Saturable-Core Magnetometer for the Detection of Static Magnetic Fields	E. P. McCurley C. Blake	15 Apr. 1959	215625	
203	The AN/FRC-47 (XD-1) Mock- Up System Performance Results	B. E. Nichols	23 Apr. 1959	216370	
204	A Probability Model for Coherent Phase-Only MTI Systems	J. W. McGinn, Jr.	4 June 1959	220812	
205	Paraboloidal Reflector Patterns for Off-Axis Feed	S. S. Sandler	14 July 1959	226245	
206	The ACM-52 Automatic Clutter Mapper and Preliminary Ex- perimental Results	J. N. Harris E. J. Madle	30 July 1959	230025	
207	A Method of Pulse Compression Employing Nonlinear Frequency Modulation	E. L. Key E. N. Fowle R. D. Haggarty	13 Aug. 1959	312903	
208	On the Band Structure of Transition Metals and Their Alloys	J. B. Goodenough	1 Sept. 1959	231241	
209	A Method of Side-Lobe Suppres- sion in Phase-Coded Pulse Compression Systems	E. L. Key E. N. Fowle R. D. Haggarty	28 Aug. 1959	229403	
210	Studies in Partial Switching of Ferrite Cores	R. H. Tancrrell R. E. McMahon	21 Sept. 1959	227928	
212	The Calliscope - A Versatile Alphanumeric Display	K. E. Perry E. J. Aho	13 Nov. 1959	232164	

Technical Reports

TR No.				DDC No.	Hayden Serial and Prices
217	Applications of Boolean Matrices to the Analysis of Flow Diagrams	R. T. Prosser	22 Jan. 1960	234081	
219	Stochastic Approximation and "Minimax" Problems	L. A. Gardner, Jr.	11 Apr. 1960	238226	
221	Transistor Life in the TX-O Computer After 10,000 Hours of Operation	D. J. Eckl R. L. Burke	14 Apr. 1960	239227	
223	Solid State Display Panels with Photoconductive Control	R. R. Billups J. Rotstein W. L. Gardner, Jr.	26 May 1960	243854	
224	Effects of Feed Displacement on Patterns of Parabolic-Cylinder Reflectors	R. L. Pease J. Pease	2 June 1960	245618	
226	Current-Operated Diode Logic Gates	H. Reinecke, Jr.	21 July 1960	245166	
227	Effect of Higher Spatial Modes on Predicted Multicavity Klystron Performance	R. L. Pease	25 July 1960	245619	
† 228	Phased Array Radar Studies, 1 July 1959 to 1 July 1960	J. L. Allen W. W. Camp L. Cartledge W. P. Delaney J. DiBartolo M. Siegel S. Spoerri J. H. Teele D. H. Temme	12 Aug. 1960	249470	H-335 M \$3.00 P \$61.65
* † 231	Sequential Encoding and Decoding for the Discrete Memoryless Channel	B. Reiffen	12 Aug. 1960	247612	H-146 M \$1.50 P \$31.60
234	Signal Processing in Radar Astronomy - Communication via Fluctuating Multipath Media	R. Price P. E. Green, Jr.	6 Oct. 1960	246782	H-520 M \$1.95 P \$30.00
† 236	Phased Array Radar Studies, 1 July 1960 to 1 July 1961	J. L. Allen L. Cartledge W. P. Delaney E. A. Davidson J. DiBartolo A. J. Fallo W. J. Ince M. Siegel J. R. Sklar S. Spoerri J. H. Teele D. H. Temme	13 Nov. 1961	271724	H-474 M \$1.80 P \$42.90

Technical Reports

TR No.				DDC No.	Hayden Serial and Prices
237	Remote Display Console for Computer Processed Data	H. E. Ziemann D. I. Underwood	13 Jan. 1961	255086	
239	Electromagnetic Theory of Spin Wave Resonance	M. H. Seavey, Jr.	15 Feb. 1961	255342	
241	GENDARE (A Generalized Data Reduction System)	M. M. Marill J. B. Williams, Jr.	22 Jan. 1962	284041	
246	A Threshold Theory for Phase-Locked Loops	H. L. VanTrees	22 Aug. 1961	266951	
247	A Solid State Memory System Utilizing Impulse Switching of Ferrite Cores	V. J. Sferrino	22 Sept. 1961	264998	
248	Application of the Resonant Cavity Method to the Measure- ment of Electron Densities and Collision Frequencies in the Wakes of Hypervelocity Pellets	M. Labitt M. A. Herlin	17 Oct. 1961	265867	
249	Cyclotron Resonance and Magneto-Optical Effects in Semiconductors	B. Lax J. Halpern	30 Apr. 1962	278081	
251	The DICON System	R. S. Berg D. B. Eshleman J. N. Harris R. M. Horowitz I. L. Lebow W. H. Long N. J. Morrisson, Jr. F. Nagy, Jr. N. L. Daggett, Editor	31 Oct. 1961	267536	
252	Elementary Lattice Theories and Their Application to Gas Adsorption Phenomena	J. M. Honig	11 Dec. 1961	269570	
253	Precision Frequency Control of a High-Power Millimeter Klystron	C. M. Steinmetz	3 Jan. 1962	273509	
254	Ferro- and Antiferromagnet- ism in a Cubic Cluster of Spins	G. F. Dresselhaus	11 Jan. 1962	273950	
255	A Diplexer Using Hybrid Junctions	L. J. Ricardi	7 Feb. 1962	274524	
256	Radio-Echo Observations of the Moon at 3.6-cm Wavelength	J. V. Evans	19 Feb. 1962	274669	

Technical Reports

TR No.				DDC No.	Hayden Serial and Prices
257	Secondary Emission Characteristics of High-Power Microwave-Tube Surfaces	A. Vierstra R. C. Butman	20 Feb. 1962	282311	
258	Error Probabilities for Adaptive Multichannel Reception of Binary Signals	R. Price	23 July 1962	284651	
259	The West Ford Antenna Feed System	L. Niro	5 Mar. 1962	282311	
261	Statistical Mechanical Theory of Magnetic Resonance	P. L. Kelley	1 May 1962	274740	
263	The COBI Data Transmission Modem	K. H. Morey	23 May 1962	277501	
264	A More Precise Analysis of Multicavity Klystrons. I. Solutions of the Boundary-Value Problem	R. L. Pease	28 Mar. 1962	275469	
265	Mass Spectrographic Lines of the Elements	E. B. Owens A. M. Sherman	3 Apr. 1962	275468	
266	Electromagnetic Studies of Ionized Wakes	E. L. Murphy S. Edelberg G. F. Pippert	20 Apr. 1962	282309	
267	Magnetism and Crystal Structure in Nonmetals	J. B. Goodenough	24 Apr. 1962	284300	
268	Calculation of the Surface Temperature of a Solid under Electron Bombardment	G. E. Vibrans	16 Nov. 1962	294645	
269	The Preparation and Properties of Some Vanadium Spinels	D. B. Rogers	25 May 1962	282542	
270	State Assignment Algorithm for Clocked Sequential Machines	M. I. Schneider	25 May 1962	286784	
272	Radio-Echo Observations of the Moon at 68-cm Wavelength	J. V. Evans	22 June 1962	291102	
273	Scattering of Electromagnetic Waves by an Eaton Lens	J. Rheinsein	28 June 1962	289380	
274	Studies of the F-Region by the Incoherent Backscatter Method	J. V. Evans	24 July 1962	292730	
275	RF Component Development for the DICON System	R. S. Berg B. Howland	3 Aug. 1962	291780	

Technical Reports

TR No.				DDC No.	Hayden Serial and Prices
276	The El Campo Solar Radar Antenna	M. E. Devane A. R. Dion	17 Aug. 1962	292173	
277	A Luneburg Lens as a Passive Reflector for Satellite Communication	R. N. Assaly	21 Aug. 1962	291781	
278	The FX-1 Magnetic Film Memory	J. I. Raffel A. H. Anderson H. Blatt T. S. Crowther T. O. Herndon	27 Aug. 1962	292172	
279	Studies in Search for a Conscious Evader	R. C. Norris	14 Sept. 1962	294832	
280	Magnetic Properties of a Single Crystal of Manganese Phosphide	E. E. Huber, Jr.	18 Dec. 1962	296788	
281	A Quantitative Examination of the Radar Resolution Problem	J. L. Allen	17 Sept. 1962	295573	
282	Radar Astronomy Measurement Techniques	P. E. Green, Jr.	12 Dec. 1962	400563	
283	A Data Processing Formalism	A. W. Armenti B. J. Schafer J. M. Winett	6 Nov. 1962	293995	
284	Scattering from Density Fluctuations in a Plasma (Scattering and Absorption Cross Section)	M. S. Macrakis	22 Oct. 1962	291779	
* 285	The Resistance of Bats to Jamming	D. R. Griffin § J. J. G. McCue A. D. Grinnell §	23 Oct. 1962	296493	
286	The Measurement of Small-Signal Parameters of Transistors at VHF	B. L. Diamond	14 Nov. 1962	292731	
287	Incoherent Scattering from a Plasma: I. The Electronic Spectrum; II. The Ion-Carried Spectrum	M. S. Macrakis	14 Nov. 1962	295092	
288	Radio-Echo Studies of the Moon at 7.84-Meter Wavelength	J. V. Evans R. P. Ingalls	20 Nov. 1962	294008	
289	Optimum Incorporation of External Observations with a Marine Inertial Navigation System	D. J. Sakrison	30 Nov. 1962	296787	

Technical Reports

TR No.				DDC No.	Hayden Serial and Prices
290	The Spectra of the Radiation from the Trail of Hypervelocity Spheres in Argon	B. W. Bryant	11 Dec. 1962	296124	
292	Orbital Scatter Channel Propagation Experiment	P. R. Drouilhet J. W. Craig P. L. Fleck W. B. Smith C. A. Wagner	21 Dec. 1962	401311	
293	Chemical Behavior of Semiconductors	H. C. Gatos M. C. Lavine	2 Jan. 1963	401398	
§ 294	Photo-Ionized Cloud as Source for Decrease in Backscatter Cross Section of Re-entering Body	E. L. Murphy	17 Jan. 1963	401310	
295	Energy-Band Calculations	F. W. Quelle, Jr.	17 Jan. 1963	404687	
296	Sketchpad: A Man-Machine Graphical Communication System	I. E. Sutherland	30 Jan. 1963	404549	
298	Some Tests of Ionization Gauges	F. T. Worrell	18 Feb. 1963	402407	
† 299	Phased Array Radar Studies, 1 July 1961 to 1 January 1963	J. L. Allen D. M. Bernella W. W. Carpenter W. P. Delaney J. DiBartolo A. J. Fallo H. J. Greenberger W. J. Ince M. Sigel S. Spoerri D. H. Temme L. Cartledge, Editor	20 Feb. 1963	417572	H-558 M \$1.50 P \$22.60
300	The Diamond Circuit	R. H. Baker R. E. McMahon R. G. Burgess	30 Jan. 1963	400955	
301	Optimum Power Division in Coherent Communication Systems	H. L. VanTrecs	19 Feb. 1963	406882	
302	Antiferromagnetic Resonance Linewidth in MnF ₂ Near the Transition Temperature	J. C. Burgiel	18 June 1963	420809	
303	Specimen Preparation by Spark-Erosion Cutting	H. H. Ehlers D. F. Kolesar	14 Mar. 1963	402938	

Technical Reports

TR No.				<u>DDC No.</u>	<u>Hayden Serial and Prices</u>
304	Mode Theory of the Active Magnetohydrodynamic Waveguide	J. R. Cogdell	2 July 1963	423408	
305	Improvement of the Measurement Capability of the UHF Radar at Wallops Island	J. Freedman, Editor	10 Apr. 1963	417559	
306	The Baseball Program: An Automatic Question-Answerer, Vols. I, II	A. K. Wolf C. S. Chomsky B. F. Green, Jr.	11 Apr. 1963	432038	
307	The Measurement of Electron Density in the Wake of a Hypervelocity Pellet Over a Six-Magnitude Range	M. Labitt	15 Apr. 1963	421762	
308	Computation of the Spreading of an Electron Beam Under Acceleration and Space-Charge Repulsion	G. E. Vibrans	18 Apr. 1963	409705	
310	A Fourier Theorem and Its Application to the Measurement of Electromagnetic Fields and Quantum Mechanical States	H. E. Moses J. S. Lomont	30 Apr. 1963	407604	
312	Magnetic Scattering of Neutrons by Hexagonal Cobalt	R. M. Moon, Jr.	9 May 1963	413566	
313	The Guide Wavelength of Cylindrical Waveguide of Arbitrary Cross Section and a Computer Program for Calculating Values	R. N. Assaly	20 May 1963	412518	
315	Machine Perception of Three-Dimensional Solids	L. G. Roberts	22 May 1963	413529	
316	Calculation of Potential Depression in Klystron Gaps	R. L. Pease	23 May 1963	417589	
318	Coding for Tracking Radar Ranging	T. C. Bartee P. E. Wood, Jr.	11 June 1963	416649	
319	Radar Range Equations for Narrow-Band Optical Sources	B. S. Goldstein	14 June 1963		
320	Growing Helical Density Waves in Semiconductor Plasmas	C. E. Hurwitz	17 Oct. 1963	432393	
321	A Linear-FM Radar Pulse Compression System Employing Thickness-Tapered Dispersive Delay Lines	R. C. Yost	11 July 1963	417528	

Technical Reports

TR No.				DDC No.	Hayden Serial and Prices
322	Properties of Dielectrics from Reflection Coefficients in One Dimension	H. E. Moses C. M. deRidder	11 July 1963	422444	
† 323	The Theory of Array Antennas (with Emphasis on Radar Applications)	J. L. Allen	25 July 1963	422945	H-563 M \$1.50 P \$11.20
324	Investigation of Effects of Surface Deviations on Haystack Antenna Radiation Patterns	A. R. Dion	29 July 1963	418740	
325	Detection of the Energy Peak of an Arbitrary Signal	L. Kleinrock	23 Aug. 1963	425894	
326	Translationally Covariant Hamiltonians	H. E. Moses J. S. Lomont	26 Aug. 1963	422500	
328	Haystack Antenna System Status Report	A. O. Kuhnel	13 Sept. 1963	600930	
329	The Reduction of Electromagnetic Backscatter from a Plasma-Clad Conducting Body	E. L. Murphy	23 Sept. 1963	430589	
330	Radiometric Measurements at 8.5-mm Wavelength with a 28-Foot Antenna During December 1962	V. L. Lynn M. D. Sohigian M. L. Meeks	8 Oct. 1963	430926	
331	Radar Observations of the Moon at 8.6-mm Wavelength	V. L. Lynn M. D. Sohigian E. A. Crocker	8 Oct. 1963	426207	
332	Radio-Echo Studies of Meteors at 68-cm Wavelength. Part I: Sporadic Meteors	J. V. Evans R. A. Brockelman	29 Oct. 1963	439354	
335	Millstone Hill Radar Station Results of Long-Baseline Radar Interferometer Studies	E. Gehrels	7 Nov. 1963	438425	
337	Mariner A Plasma Probe	H. S. Bridge § B. Rossi § F. Scherb § R. H. Baker R. S. Cuikay E. F. Lyon, III	5 Dec. 1963		
338	The West Ford Antenna System	B. F. LaPage	6 Dec. 1963	438879	

Technical Reports

TR No.				DDC No.	Hayden Serial and Prices
339	Signal Parameter Estimation for Seismometer Arrays	E. J. Kelly M. J. Levin	8 Jan. 1964	435489	
341	Radio-Echo Studies of Meteors at 68-cm Wavelength. Part II: Shower Meteors	J. V. Evans R. A. Brockelman	17 Jan. 1964	601518	
342	Measurement of the Diameter of the Electronic Wake of the Hypersonic Pellets	M. Labitt	20 Jan. 1964	438816	
343	Project West Ford Payload Telemetry System	W. T. Higgins L. A. Jacobson J. B. Rankin	20 Jan. 1964	602928	
344	Information Capacity and Quantum Effects in Propaga- tion Circuits	T. Hagfors	24 Jan. 1964	436639	
345	Interpretation of the Magnetic and Crystallographic Properties of Compounds with the B31 Structure	J. B. Goodenough	28 Jan. 1964	435758	
346	The Orthomatch Data Transmission System	B. G. Kuhn	20 Feb. 1964	602130	
347	Probability Distribution of Antenna Gain for Satellite with Switched Antenna System	R. N. Assaly	4 Feb. 1964	602484	
348	A More Precise Analysis of Multicavity Klystrons. II. Pre- diction of Electronic Conduct- ance and Over-All Gain	R. L. Pease	14 Feb. 1964	441855	
349	Radar Scattering from a Conducting Cone-Sphere	J. H. Pannell J. Rheinstein A. F. Smith	2 Mar. 1964	600411	

GROUP REPORTS

No.				DDC No.	Hayden Serial and Prices
21G-0001	Flexowriter and Ampex Tape Terminal Input Equipment for IBM-709 Computer	J. R. Brown	26 Aug. 1959	235248	H-63 M \$1.50 P \$8.20
21G-0003 (Rev. 1)	Wallops Island Preliminary Processing Computer Programs	S. M. Ornstein	25 July 1960	243045	H-158 M \$1.50 P \$8.20
21G-0003 (Rev. 2)	Wallops Island Preliminary Processing Computer Programs	S. M. Ornstein R. J. Saliga	23 Jan. 1961	250959	H-253 M \$1.50 P \$8.20
21G-0004	Oscilloscope Cameras for Video Recording - Reentry Physics Program	E. E. Schowengerdt	13 Mar. 1961		H-471 M \$1.50 P \$5.40
21G-0005	Automatic Range Tracking System for the Reentry Physics Program	J. E. Gillis	17 Feb. 1960	242887	H-159 M \$1.50 P \$12.70
21G-0006	Primary Recording Instrumentation for Re-entry Physics Program	E. J. Peters	20 Feb. 1961	263517	H-342 M \$1.50 P \$18.90
21G-0007	Backup Recording Instrumentation for Reentry Physics Program	K. H. Morey	18 May 1960	241800	H-145 M \$1.50 P \$10.60
21G-0008	Scanback Antenna Control for Reentry Physics Program	A. H. Flink	5 July 1961		H-472 M \$1.70 P \$24.90
21G-0009	Real Time Clock and Teletype Data Transmitter for Reentry Physics Program	R. M. Martinson	5 July 1960	242888	H-156 M \$1.50 P \$21.70
21G-0011	UHF Radar for Reentry Physics Program	B. G. Kuhn	19 Sept. 1960	244586	H-182 M \$1.50 P \$24.70
21G-0013	X-Band Radar for Reentry Physics Program	J. Sobolewski F. J. Dominick E. E. Schowengerdt L. C. Wilber	7 Dec. 1960	252043	H-262 M \$1.50 P \$25.90
21G-0015	Amplitude Calibration for Reentry Physics Program Arbuckle Neck Radars	B. G. Kuhn	19 Sept. 1960	245324	H-192 M \$1.50 P \$13.90

Group Reports

No.				DDC No.	Hayden Serial and Prices
† 21G-0016	Procedures for Operating Parametric Amplifier in Reentry Physics Program	F. R. Hutchinson F. J. Dominick R. H. Kingston L. C. Wilber E. E. Schowengerdt	28 July 1960	243636	H-165 M \$1.50 P \$6.40
21G-0017	Anelex Printout System for Reentry Physics Program	E. J. Peters	21 Aug. 1961	263249	H-336 M \$1.50 P \$8.65
21G-0018	Specifications for Needles Filter Program Package	F. E. Heart	7 Apr. 1960	244493	H-180 M \$1.50 P \$4.90
† 21G-0019	Specification for Needles Statistical Orbit Prediction Program	W. R. Crowther	20 Apr. 1960	244494	H-181 M \$1.50 P \$1.60
21G-0021	An Introduction to Digital Techniques	R. M. Martinson	20 May 1960		H-473 M \$1.50 P \$13.90
21G-0022	Specifications for Teletype Tape Checking Procedure	S. M. Ornstein	16 June 1960	240171	H-130 M \$1.50 P \$4.00
21G-0022 (Suppl. 1)	Revision of West Ford TTY Checking Program	J. D. Drinan	2 Aug. 1962	283778	
21G-0024	West Ford Primary Print Program	J. D. Drinan	24 Jan. 1961	250958	H-250 M \$1.50 P \$4.00
21G-0024 (Suppl. 1)	West Ford Primary Print Program	J. D. Drinan	2 Aug. 1962	286367	
21G-0026	West Ford Coordinate Conversion Program	W. R. Crowther	1 Nov. 1960	246188	H-210 M \$1.50 P \$3.10
21G-0027	West Ford Statistical Orbit Prediction Program	W. R. Crowther	2 Nov. 1960	246778	H-221 M \$1.50 P \$2.80
21G-0028	West Ford Orbit Determination	A. A. Mathiasen	2 Nov. 1960	246777	H-222 M \$1.50 P \$6.70
21G-0029	Reliability of Redundant Computers	R. Teoste	22 Mar. 1961	260494	H-321 M \$1.50 P \$21.15
21G-0031	Specification for West Ford Pointing Program	F. E. Heart	20 July 1961	261181	H-326 M \$1.50 P \$6.40

Group Reports

No.				<u>DDC No.</u>	<u>Hayden Serial and Prices</u>
21G-8001	Some Reliable Redundant Circuits	R. Teoste	7 June 1962	284793	H-423 M\$1.50 P\$7.65
21G-1	Programmed Satellite Pass Calculations	A. A. Mathiasen	28 June 1962	282041	H-414 M\$1.50 P\$14.90
21G-2	Project 861 Computer Programming System; Mathematical Analysis for Computation of Radar Pointing Data	Group 21	14 Sept. 1962	286547	H-434 M\$1.50 P\$13.15
21G-3	Project 861 Computer Program System; Auxiliary Programs and Techniques	J. D. Drinan A. A. Mathiasen	6 Sept. 1962	285046	H-426 M\$1.50 P\$6.90
21G-4	Project 861 Orbit Programs	A. A. Mathiasen W. R. Crowther	31 Aug. 1962	285045	H-425 M\$1.50 P\$14.40
21G-6	Project 861 Computer Program System; Pointing Program Notes	D. M. Hafford	21 Nov. 1962	290802	H-455 M\$1.50 P\$4.65
21G-7	Project 861 Computer Program System; Venus Pointing Data	J. D. Drinan	19 Nov. 1962	291230	H-459 M\$1.50 P\$6.90
21G-8	SICOSAS, an IBM 7090 Computer Assembly Program for the CDC 160-A Computer	J. D. Drinan	17 Jan. 1963	295693	H-469 M\$1.70 P\$24.65
† 22G-0002	An Algorithm for Assembling a Simple Tabular Report	P. R. Bagley	14 July 1959	230435	H-33 M\$1.50 P\$6.70
† 22G-0004	Approximations to Model Atmospheres	A. P. Ogg	10 Nov. 1959	230436	H-34 M\$1.50 P\$7.60
† 22G-0005	A Catalog of Tangent Rays	F. H. Ditto	12 Aug. 1959	230433	H-35 M\$1.50 P\$15.70
† 22G-0006	Sub-Program Storage Within a Digital Computer: A Cargo-Loading Problem	A. A. Grometstein	18 Aug. 1959	230437	H-36 M\$1.50 P\$5.50
† 22G-0009	A Facility for Automatic Construction of Large Program Systems	C. W. Uskavitch	29 Sept. 1959	234248	H-56 M\$1.50 P\$14.20

Group Reports

No.				DDC No.	Hayden Serial and Prices
† 22G-0011	An Efficient Iterative Procedure for Locating the Optimum Operating Point of a Noisy System	H. J. Kushner	7 Dec. 1959	233269	H-47 M \$2.35 P \$20.80
† 22G-0012	Program Description and Operating Manual for PAVEG (Position and Velocity Error Generator)	D. L. Lovenvirth	14 Dec. 1959	244403	H-178 M \$1.50 P \$7.60
† 22G-0014	Applications of Boolean Matrices to the Analysis of Flow Diagrams	R. T. Prosser	21 Dec. 1959	230434	H-37 M \$1.50 P \$4.30
22G-0017	Macro Library for Easier Coding	J. S. Heart	15 Jan. 1960	233267	H-48 M \$1.50 P \$7.30
22G-0018	Introduction to an Investigation of a Technique for Smoothing Radar Returns from an Artificial Earth Satellite	F. Levine	15 Jan. 1960	233268	H-49 M \$1.50 P \$8.80
22G-0019	Preliminary Description of GENDARE	J. B. Williams, Jr.	15 Jan. 1960	233270	H-50 M \$1.50 P \$4.90
22G-0020	The GENDARE Identification Function	M. M. Daley	15 Jan. 1960	233265	H-51 M \$2.35 P \$19.90
22G-0021	On the Linear Smoothing of Redundant Radar Data from Satellites	F. C. Schweppe	25 Aug. 1960	243042	H-154 M \$1.50 P \$18.40
† 22G-0024	Analysis and Design of Simple Nonlinear Noise Filters	R. W. Sittler	5 Feb. 1960		H-46 M \$1.70 P \$29.80
22G-0025	The Design of a Language for Simplex System Users	D. Reiner	10 Mar. 1960	236233	H-83 M \$1.50 P \$7.90
22G-0027	Specifications and Operating Instructions for the OPERA	H. D. Fridman	4 Apr. 1960	236231	H-80 M \$1.50 P \$7.90
† 22G-0029	Decoding of Group Codes for Binary Symmetric Channels	W. I. Wells	21 Mar. 1960		H-70 M \$1.80 P \$31.30
22G-0034	On the Consistency of the Photon-Electron System - II	R. T. Prosser	6 June 1960	238064	H-112 M \$1.50 P \$10.60

Group Reports

No.				DDC No.	Hayden Serial and Prices
22G-0035	A Method for Locating the Maximum of a Function of a Single Variable in the Presence of Noise	R. C. Norris	20 Oct. 1960	245804	H-207 M \$1.50 P \$12.10
22G-0036	Classification of Binary Sequences	W. I. Wells	10 May 1960	236796	H-95 M \$1.50 P \$3.40
22G-0038	A Method for Computing Keplerian Orbit Parameters from Two Positions with Times	A. P. Ogg	9 June 1960	238062	H-113 M \$1.50 P \$4.60
22G-0039	Some Results of Estimating Satellite Elements from Millstone Hill Averaged Data	H. D. Fridman	2 Nov. 1960	246781	H-217 M \$1.50 P \$10.60
22G-0041	Routing Procedures in Communications Networks. Part I: Random Procedures	R. T. Prosser	12 July 1960	241408	H-135 M \$1.50 P \$12.70
22G-0042	GENDARE System - Fundamental Concepts of Logic and Structure	J. B. Williams, Jr.	17 Oct. 1960	245234	H-195 M \$1.50 P \$6.70
22G-0043	Efficient Iterative Methods for Optimizing the Performance of Multi-Parameter Noisy Systems	H. J. Kushner	20 Oct. 1960	245802	H-205 M \$1.50 P \$23.50
22G-0046	An Empirical Investigation of Procedures for Locating the Maximum Peak of a Multiple-Peak Regression Function	E. J. Magee	20 Oct. 1960	245672	H-206 M \$1.50 P \$10.60
22G-0051	On the Behavior of the Geometric Genus Under Ground Field Extension	P. L. Falb	20 Oct. 1960	245548	H-202 M \$1.50 P \$4.00
22G-0052	On Determining the Ratio Between the Area of an Elliptical Sector and Its Triangle Approximation	R. Crittendon E. Dubinsky H. D. Fridman	18 May 1961	257640	H-308 M \$1.50 P \$6.65
22G-0053	Concepts of Automatic Data Storage and Retrieval in the Simplex System	C. W. Uskavitch	17 Oct. 1960	245472	H-201 M \$1.50 P \$21.10
22G-0054	A Survey of the Simplification of Truth Functions	W. Draisin	20 Oct. 1960	245231	H-193 M \$1.50 P \$6.10

Group Reports

No.				<u>DDC No.</u>	<u>Hayden Serial and Prices</u>
22G-0055	A Sequential Procedure for Sampling the Population with the Maximum Mean	H. J. Kushner	23 Feb. 1961	252047	H-263 M \$1.50 P \$5.20
22G-0061	A Number of Results from Studies of Digital Filtering and the Convergence of Iterative Techniques	R. Crittendon E. Dubinsky D. Lubell F. C. Schweppe	1 June 1961	257461	H-306 M \$1.50 P \$13.15
22G-0071	Movement of Military Operations-Centers or Other Military Installations as Safe-guard Against Nuclear Attack	J. H. Halberstein	14 May 1961	259667	H-317 M \$1.50 P \$8.15
† 22G-1	Movement of Military Centers as Safeguard Against Nuclear Attack, Part II	J. H. Halberstein	12 June 1962	285044	H-427 M \$1.50 P \$15.15
22G-2	Methods for the Adaptive Optimization of Binary Detection Systems	H. J. Kushner	9 Nov. 1962	290741	H-448 M \$1.50 P \$14.90
22G-3	Partial Differential Equations: First-Order Theory in One Dependent Variable – Deterministic Case	P. L. Falb	27 Nov. 1961	268122	H-368 M \$1.50 P \$6.90
22G-4	On Optimal Linear Control Systems Which Minimize the Time Integral of the Absolute Value of the Control Function (Minimum-Fuel Control Systems)	M. Athanassiades	10 May 1962	276881	H-404 M \$1.50 P \$23.65
† 22G-5	Newtonian Drag Coefficients and Weights for Blunted Cone-Spheres at Small Angles of Attack	A. Freed	30 Mar. 1962	275055	H-398 M \$1.50 P \$6.90
22G-6	The Local Behavior of Circular Orbits	F. C. Schweppe	23 Feb. 1962	272869	H-380 M \$1.50 P \$4.90
22G-7	A Model for the Study of Communications Degradation	K. M. Sayre	29 Mar. 1962	274739	H-397 M \$1.50 P \$17.65
22G-8	Time-Optimal Velocity Control of a Spinning Space Body	M. Athanassiades P. L. Falb	6 Sept. 1962	284207	H-422 M \$1.50 P \$11.40
22G-9	Time- and Fuel-Optimal Attitude Control	M. Athans	23 May 1963	407437	H-518 M \$1.50 P \$6.60

Group Reports

No.				<u>DDC No.</u>	<u>Hayden Serial and Prices</u>
22G-10	Reduction of Computational and Data Transmission Requirements for Trajectory Estimation Using Multiple Sites	F. C. Schweppe	23 Aug. 1963	416742	H-533 M \$1.50 P \$4.20
22G-13	Newtonian Drag of Coated Cylinders	A. Freed	7 Jan. 1963	296790	H-480 M \$1.50 P \$6.15
22G-15	An Introduction to Estimation Theory for Dynamical Systems	F. C. Schweppe	28 Aug. 1963	417777	H-538 M \$1.50 P \$10.60
22G-16	Tables of the Amplitude and Phase of the Backscatter from a Conducting Sphere	J. Rheinstein	19 June 1963	409820	H-522 M \$1.50 P \$9.60
† 24-54	Phone Line Data Transmission Systems	K. E. Perry	Sept. 1955		H-106 M \$1.50 P \$5.20
† 2G-24-83	Magnetic Core SDV	F. L. McNamara	23 Dec. 1957	246780	H-218 M \$1.50 P \$13.90
2G-25-4	Error Statistics on Dual A-1 Digital Data Transmission Circuits from Kingston, New York to Cape Canaveral, Florida	E. J. Hofmann G. E. Masters §	6 June 1958	244772	H-185 M \$2.05 P \$37.30
† 2G-25-12	Error Statistics on Dual A-1 Digital Data Transmission Circuits from Lexington, Massachusetts to So. Truro, Massachusetts	E. J. Hofmann	Feb. 1959		H-169 M \$1.50 P \$25.60
25G-0001	Design and Analysis of Circuitry for a Matched Filter System	W. A. Petersen	5 Aug. 1960	244771	H-183 M \$1.50 P \$10.30
25G-0002	Reflections from Spheroids	D. Parker	19 Feb. 1960	236594	H-88 M \$1.50 P \$4.60
† 25G-0003	Measurement of Time Varying Telephone Line Characteristics	R. G. Gallager	Sept. 1959	230432	H-38 M \$1.50 P \$4.00
25G-0004	The Characterization of Channels with Rapid Multiplicative Perturbations	H. Sherman	26 Aug. 1960	243044	H-155 M \$1.50 P \$15.70

Group Reports

No.				DDC No.	Hayden Serial and Prices
25G-0005	Error Statistics on Dual Data Circuits from Kingston, New York to Cape Canaveral, Florida	E. J. Hofmann	20 Oct. 1960	245991	H-208 M \$1.50 P \$12.40
25G-0006	Error Statistics on the Hawaiian Cable	E. J. Hofmann	19 Feb. 1960	236595	H-89 M \$1.50 P \$6.40
25G-0007	A Converter for AN/GSC-4 Connection to the Automatic Digital Data Error Recorder	W. G. Schmidt	29 Jan. 1960	236596	H-90 M \$1.50 P \$5.20
25G-0008	RANDWORD Circuitry and Circuit Characteristics	W. G. Schmidt	20 July 1960	240417	H-132 M \$1.50 P \$12.70
25G-0010	Error Statistics on a Long-Haul Looped Telephone Circuit Utilizing the Milgo Data System	E. J. Hofmann P. L. Grant	17 June 1960	240820	H-134 M \$1.50 P \$15.10
25G-0012	Impulse Noise on an H-44 Telephone Circuit Looped from Lexington, Massachusetts via West Haven, Connecticut	R. Pfeiffer H. Yudkin	Apr. 1960	236232	H-79 M \$1.50 P \$13.00
25G-0013	A Proposal for Long Range Communications Between Ground and Low-Orbiting Satellites	M. S. Macrakis	19 Feb. 1960	237120	H-104 M \$1.50 P \$8.20
25G-0014	Bermuda to New York Radio Teletype Reliability Tests	R. E. Greim	10 Mar. 1960	237123	H-99 M \$1.50 P \$9.40
25G-0015	Study of Torsional Waves in a Laminated Elastic Rod	M. S. Macrakis	27 May 1960	237853	H-111 M \$1.50 P \$16.00
25G-0017	Reliability Modifications to the ADDER and Kineplex Converter	E. J. Hofmann P. L. Grant W. A. Petersen W. G. Schmidt	25 Aug. 1960	242596	H-149 M \$1.50 P \$4.90
† 25G-0019	TRANSWORD – A Portable Word Generator for Use in Measurement of Bit Error Distribution	W. G. Schmidt	19 Oct. 1960	245232	H-194 M \$1.50 P \$3.70
25G-0021	Determination of R_{cutoff} for the Asymmetric Channel	B. Reiffen	24 Oct. 1960	246372	H-214 M \$1.50 P \$6.40
25G-0021 (Rev. 1)	Determination of R_{cutoff} for the Asymmetric Channel	B. Reiffen	3 Mar. 1961	252498	H-267 M \$1.50 P \$5.50

Group Reports

No.				DDC No.	Hayden Serial and Prices
25G-0022	The Design of Data Trans- mission Systems	R. G. Enticknap R. M. Lerner	4 Oct. 1960	243926	H-167 M \$1.50 P \$7.60
25G-0024	Error Statistics on the Collins Kineplex Over Various Media	E. J. Hofmann P. L. Grant E. H. Harvey	12 Jan. 1961	251447	H-257 M \$1.50 P \$19.30
25G-0025	Error Statistics Utilizing the Milgo Data System Over Various Media	E. J. Hofmann P. L. Grant	23 Jan. 1961	251510	H-258 M \$1.50 P \$21.10
25G-0026	Error Statistics Utilizing the Code Translation Data System Over Various Media	E. J. Hofmann	28 Mar. 1961	254037	H-278 M \$1.50 P \$38.20
25G-0028	Collected Error Statistics Utilizing Four Modems Over Various Telephone Circuits	E. J. Hofmann	23 Jan. 1961	251571	H-259 M \$1.50 P \$7.30
25G-0032	The Design of Band Separation Filters	A. I. Grayzel	4 Jan. 1961		H-235 M \$1.50 P \$18.10
25G-0033	Cerenkov Radiation and Milli- meter Wave Applications (Part A)	M. S. Macrakis	3 May 1961	256271	H-297 M \$1.50 P \$11.65
25G-0035	Specifications for a COBI Data Transmission Modern	E. J. Hofmann	18 July 1961	261546	H-327 M \$1.50 P \$13.15
25G-0037	Error Statistics of A-1 Digital Data Signaling Equipment over Various Media	P. L. Grant	15 Sept. 1961	264332	H-348 M \$1.50 P \$31.40
† 25G-1	A Lower Bound for the Sum of Independently Distributed Continuous Random Variables	B. Reiffen	27 Oct. 1961	266826	H-357 M \$1.50 P \$2.90
† 25G-2	Sequential Decoding for Binary Channels with Noise and Syn- chronization Errors	R. G. Gallager	27 Oct. 1961	266879	H-356 M \$1.50 P \$8.65
25G-3	Applicability of Coding to Radio Teletype Channels	A. B. Fontaine	27 Oct. 1961	266827	H-355 M \$1.50 P \$4.40
25G-4	Experiments in the Improve- ment of the Impulse Response of Telephone Circuits	H. L. Yudkin	27 Nov. 1961	269557	H-373 M \$1.50 P \$7.90

Group Reports

No.				DDC No.	Hayden Serial and Prices
25G-5	Automatic Error-Detection System for Toll-Grade Telephone Circuit Data Transmission	W. G. Schmidt	27 Nov. 1961	268128	H-367 M \$1.50 P \$7.90
25G-6	Matching and Error Counter	L. Staaf E. J. Hofmann	5 Dec. 1961	268704	H-369 M \$1.50 P \$5.65
25G-7	Semi-Automatic RANDWORD Printed Circuit Tester	C. A. Hoover	27 Nov. 1961	268703	H-370 M \$1.50 P \$8.40
25G-8	COBI Data Transmission Testing in the United Kingdom	P. L. Grant	27 Mar. 1962	275152	H-400 M \$1.50 P \$6.90
25G-9	Transmission Testing on Alaskan Forward-Propagation Tropospheric Scatter Circuits	P. L. Grant	29 May 1962	282040	H-413 M \$1.50 P \$14.40
25G-10	Revised RANDWORD Circuitry and Circuit Characteristics	W. G. Schmidt	21 Aug. 1962	289379	H-447 M \$1.50 P \$21.90
25G-11	Data Transmission Testing from Donnelly Flats, Alaska to Sunnyvale, California over a Network of Carrier Equipment	P. L. Grant	21 Feb. 1963	402067	H-490 M \$1.50 P \$8.65
25G-12	Data Transmission Testing from Donnelly Flats, Alaska to Sunnyvale, California over a TD-2 Microwave Circuit	P. L. Grant	29 Nov. 1962	294849	H-465 M \$1.50 P \$7.15
25G-13	Non-linear Effects in a Plasma	M. S. Macrakis	8 Jan. 1963	295690	H-467 M \$1.50 P \$5.40
25G-14	Error Statistics and Coding for Digital Data Transmission over Telephone and Teletype Circuits	A. B. Fontaine	21 Jan. 1963	298114	H-481 M \$1.50 P \$5.40
25G-15	Blocks in Error and Pareto's Law	B. J. Moriarty	28 Jan. 1963	296490	H-475 M \$1.50 P \$2.15
† 25G-16	An Optimum Demodulator for Poisson Processes: Photon Source Detectors	B. Reiffen H. Sherman	20 Feb. 1963	401752	H-500 M \$1.50 P \$4.20

Group Reports

No.				DDC No.	Hayden Serial and Prices
25G-17	Some Experimental Results for a Sequential Decoding Algorithm Applied to an Asymmetric Channel	B. Reiffen D. Wiggert	12 Feb. 1963	400616	H-488 M \$1.50 P \$12.15
25G-19	Delay in Data Transmission Through Simple Networks: Steady State Characteristics with Infinite Nodal Storage	B. J. Moriarty	6 June 1963	408250	H-510 M \$1.50 P \$9.80
25G-20	Thresholds for Several Analog Modulation Systems	B. Reiffen	6 May 1963	404621	H-516 M \$1.50 P \$5.80
26G-1	Uniform Oscillations from Infrared Masers (12 September 1961)	J. R. O'Connor H. A. Bostick D. B. Barker \$	8 Jan. 1962	270662	H-376 M \$1.50 P \$3.15
28G-1	A Note on the Multiple Zeros of Random Polynomials	J. C. Fogarty J. Max	31 Aug. 1962	283777	H-420 M \$1.50 P \$4.90
28G-3	A Random Acceleration Model for Filtering Polynomial- Like Signals	L. E. Jones F. C. Schweppe	25 Oct. 1963	423431	H-548 M \$1.50 P \$8.40
3G-0002	The Distribution of Electrons in the Upper Ionosphere from Backscatter Observations	J. V. Evans	23 Nov. 1960	247860	H-255 M \$1.50 P \$7.00
3G-0002 (Suppl. 1)	The Distribution of Electrons in the Upper Ionosphere from Backscatter Observations	J. V. Evans	3 Apr. 1961	254143	H-280 M \$1.50 P \$3.70
3G-0003	Radio Communication Using Moon Reflected Signals	J. V. Evans	19 Dec. 1960	249355	H-237 M \$1.50 P \$10.60
3G-0004	The Scattering Properties of the Lunar Surface at Radio Wavelengths	J. V. Evans	10 Jan. 1961	250684	H-248 M \$1.50 P \$15.70
30-0001	Millstone Observations on NASA Shotput II Balloon, 16 January 1960, and Pre- liminary Conclusions	Group 314	29 Jan. 1960	235667	H-65 M \$1.50 P \$4.60
30-0002	Millstone Observations During the NASA Shotput III Experi- ment, 27 February 1960	P. B. Sebring	2 Mar. 1960	235668	H-66 M \$1.50 P \$6.10
30-0003	A Preliminary Investigation of Meteor Echoes at UHF	G. H. Pettengill V. C. Pineo	16 Mar. 1960	235669	H-67 M \$1.50 P \$3.70

Group Reports

No.				DDC No.	Hayden Serial and Prices
30G-0004	Millstone Observations During the NASA Shotput IV Experiment	D. P. Hynek	29 Apr. 1960	236129	H-85 M\$1.50 P\$5.20
† 30G-0005	Millstone Hill Radar Station – A Summary of Millstone Hill Results for the TIROS I Satellite Launching	G. H. Pettengill	16 May 1960	237124	H-100 M\$1.50 P\$9.70
30G-0007	Millstone Operations Related to the Pioneer V Space Probe	R. R. Silva	23 June 1960	239345	H-117 M\$1.50 P\$5.80
30G-0009	Coding Instructions for Floating Point Trigonometric, Inverse Trigonometric, Hyperbolic and Exponential Functions	B. A. Jensen	1 Nov. 1960	246189	H-212 M\$1.50 P\$3.10
30G-0010	Digital Tracking Loop for High-Powered, Experimental Radar	E. C. Fraser	12 Sept. 1960		H-171 M\$1.50 P\$25.90
30G-0011	Lunar Communication Test Summary – 1959	P. B. Sebring	28 Sept. 1960	244207	H-170 M\$1.50 P\$3.70
30G-0014	Distribution of Electrons in the F Region	J. V. Evans	15 Sept. 1961	263902	H-345 M\$1.50 P\$9.90
30G-2	Radar Cross-Section Observations of the Echo I Communications Satellite	D. P. Hynek	19 Feb. 1962	274065	H-393 M\$1.50 P\$24.15
† 31-148	Communication System for a Mars Reconnaissance Vehicle	M. I. Skolnik L. Cartledge L. J. Ricardi	14 May 1959	239073	H-166 M\$1.50 P\$17.50
† 31-150	The Autocovariance Filter	J. L. Allen	10 Aug. 1959	236168	H-72 M\$1.50 P\$18.70
32-24	An Analysis of Angular Accuracies from Radar Measurements	R. Manasse	6 Dec. 1955	236166	H-75 M\$1.50 P\$4.30
† 32-25	The Application of the Theory of Signal Detectability to Signals with Unknown Polarization and Phase	R. Manasse	20 Aug. 1956	236167	H-10 M\$1.50 P\$8.50
32-26	The Performance of Post-Detection Integrators for the Detection of a Sine Wave in Noise at Low Input Signal-to-Noise Ratio	R. Manasse	28 Nov. 1956	236234	H-76 M\$1.50 P\$7.90

Group Reports

No.				DDC No.	Hayden Serial and Prices
† 32-105	A New Phone Line Data System for Use in SAGE	K. E. Perry	1 May 1958	230115	H-30 M \$1.50 P \$13.90
32G-2	Preliminary Study of the Effect of Ozone on Atmospheric Transmission in the Range 0.25 Micron to 0.60 Micron	J. H. Meyer R. E. Newell \$	19 Feb. 1963	402842	H-506 M \$1.50 P \$5.80
33-9	Observations at Round Hill on Shot Put II	L. P. Rainville	1 Mar. 1960	235246	H-62 M \$1.50 P \$9.10
33G-0014	Convection and Diffusion of Ionization in the E-Layer	H. Feshbach F. Villars	1 Dec. 1960	248362	H-229 M \$1.50 P \$15.40
† 33G-0015	Precision Tropospheric Radio Refraction Corrections for Ranges from 10 - 500 Nautical Miles	J. R. Bauer F. A. Wilson	20 Feb. 1961	252572	H-270 M \$1.50 P \$14.80
33G-1	Programming for the Group 33 Analog-to-Digital Conversion System	R. P. Ingalls W. C. Mason	9 July 1963	282042	H-415 M \$1.50 P \$13.65
† 34-43	Pattern Recognition and Learning	O. G. Selfridge	20 July 1955		H-21 M \$1.50 P \$7.30
† 34-55	Heuristic Aspects of the Artificial Intelligence Problem	M. L. Minsky	17 Dec. 1956	236885	H-58 M \$1.50 P \$26.80
† 34-57	"MAUDE" (Morse Automatic Decoder)	B. N. Eisenstadt B. Gold D. M. Nelson T. S. Pitcher O. G. Selfridge	30 Apr. 1957	230943	H-4 M \$1.50 P \$13.10
† 34-71	Legendre Sequences	N. Zierler	2 May 1958	268167	H-359 M \$1.50 P \$1.90
† 34-72	Some Results of the "MAUDE" Program	B. Byrnes B. Gold C. Kemball	June 1958	236398	H-39 M \$1.50 P \$9.40
† 34-75	A Preliminary Study of Human Pattern Recognition	U. Neisser	12 Sept. 1958	236395	H-59 M \$1.50 P \$6.40

Group Reports

No.				DDC No.	Hayden Serial and Prices
† 34-76	A Survey of Soviet Communication Electronics	P. E. Green, Jr., Editor	Sept. 1958		H-8 M \$2.65 P \$59.75
† 34-84	A Summary of Detection Theory Notions in Radar Astronomy Terms	P. E. Green, Jr.	18 Jan. 1960	245698	H-189 M \$1.50 P \$8.80
34-85	A Transistorized Frequency Standard	P. L. Fleck	26 Jan. 1960	251107	H-255 M \$1.50 P \$4.60
34G-0002	Data Recording Equipment for Propagation Experiments	R. E. Gay W. B. Smith C. A. Wagner	12 Apr. 1960	239660	H-124 M \$1.50 P \$9.70
† 34G-0003	Radiometer Techniques in Radar	R. Price	10 June 1960	238759	H-121 M \$1.50 P \$17.20
34G-0005	A Computer Program for Processing Signals Received in Radar Astronomy Experiments	P. L. Fleck T. J. Goblick	14 Oct. 1960	245549	H-200 M \$1.50 P \$7.00
34G-0006	Sequential Transmission of Digital Information with Feedback	M. Horstein	8 Aug. 1960		H-136 M \$1.80 P \$34.00
34G-0008	On the Detection of Stochastic Signals in Additive Normal Noise: Part II	D. Middleton §	28 Dec. 1960	250287	H-247 M \$1.50 P \$16.30
34G-1	A Critique of Wilcox's Method of Ambiguity Function Synthesis	W. S. Widnall	28 Nov. 1961	267537	H-366 M \$1.50 P \$3.15
† 34G-2	The Detection and Identification of Underground Nuclear Explosions: A Study	G. L. Turin	2 Mar. 1962	273825	H-389 M \$1.50 P \$9.40
† 34G-3	The Effect of Approximation Errors in a General Class of Matched Filter Detectors	M. J. Levin	13 Feb. 1962	272757	H-379 M \$1.50 P \$4.40
† 34G-4	Maximum-Likelihood Estimation of the Correlation Function of a Threshold Signal, and Its Application to the Measurement of the Target Scattering Function in Radar Astronomy	R. Price	25 May 1962	276903	H-403 M \$1.50 P \$8.90
† 34G-5	Instantaneous Spectra and Ambiguity Function	M. J. Levin	2 Mar. 1962	273239	H-386 M \$1.50 P \$3.15

Group Reports

No.				DDC No.	Hayden Serial and Prices
34G-6	Estimation of Doppler Shift and Spectral Width of a Random Process	M. J. Levin	12 June 1962	278686	H-409 M \$1.50 P \$4.40
34G-7	Estimation of the Second-Order Statistics of Randomly Time-Varying Linear Systems	M. J. Levin	2 Nov. 1962	289607	H-445 M \$1.50 P \$11.40
34G-8	The Estimation of a Pulse Transfer Function in the Presence of Noise	M. J. Levin	9 July 1962	282043	H-412 M \$1.50 P \$5.65
34G-9	Confidence Intervals and Sample Sizes in the Measurement of Signal and Noise Powers, Signal-to-Noise Ratios and Probability of Error	J. L. Holsinger	3 Jan. 1963	295133	H-466 M \$1.50 P \$11.40
34G-10	Upper Bound to the Capacity of a Linear Time-Varying Channel with Additive Gaussian Noise	G. D. Forney, Jr.	26 Sept. 1962	287453	H-437 M \$1.50 P \$5.40
34G-12	Radar Observations of the Planet Venus in the Soviet Union in April 1961		27 Feb. 1963	401137	H-489 M \$1.50 P \$15.90
35G-0002	Electron Density Measurements in the Wakes of Hypervelocity Pellets	M. Labitt M. A. Herlin	25 May 1961	272629	H-584 M \$1.50 P \$3.60
35G-2	Kinetic Theory Description of the Initial Expansion of a Gas Cloud	G. Bienkowski §	2 Nov. 1962	290491	H-446 M \$1.50 P \$13.40
36-18	Band-Pass Filters with Linear Phase	R. M. Lerner	July 1957	236399	H-55 M \$1.50 P \$7.30
36-25	A History of the Effort of MIT Lincoln Laboratory in the UHF/SHF Tropospheric-Scatter Communication Field Utilizing Frequency Modulation	W. E. Morrow, Jr. W. T. Burke	1 Jan. 1958	237119	H-102 M \$1.50 P \$12.70
† 36-36	On the Pathological Character of Independent Random Variables	D. G. Brennan	5 May 1959	245237	H-196 M \$1.50 P \$7.60
† 36-41	A Method of Speech Compression	R. M. Lerner	24 Aug. 1959	244920	H-164 M \$3.15 P \$67.00

Group Reports

No.				DDC No.	Hayden Serial and Prices
36-42	Design of Signals	R. M. Lerner	11 Feb. 1960	236230	H-81 M \$1.50 P \$16.30
36-44	Additional Tests on the AN/FRC-47 (XD-1) Mock- up System	B. E. Nichols	11 Mar. 1960	243578	H-163 M \$1.50 P \$4.00
† 36G-0045	The Capture of the Weaker of Two Co-Channel Frequency- Modulated Signals	J. M. Gutwein	21 May 1960		H-109 M \$2.30 P \$68.20
36G-0047	A Tabulation of Quadratic Residues or Legendre Se- quences with Respect to Primes up to 1021	R. M. Lerner A. Sherman	27 July 1960	241464	H-137 M \$1.50 P \$13.30
36G-1	The Influence of Terrain Shielding on Radio Wave Propagation at 8000 Mcps	W. E. Morrow, Jr. D. Karp R. V. Locke, Jr. W. C. Provencher	20 Nov. 1962	290511	H-452 M \$1.50 P \$2.40
36G-2	Microwave Cross Section of Thin Dipoles	C. L. Mack, Jr.	15 Nov. 1962	291231	H-458 M \$1.50 P \$8.40
36G-3	Optimum Satellite Dispensing Velocities for an Equatorial High Altitude Nonsynchronized Satellite Communication System	W. E. Morrow, Jr.	5 Dec. 1962	292995	H-461 M \$1.50 P \$3.90
36G-4	A Real-Time Fourier Transformer	W. E. Morrow, Jr. J. Max J. Petriceks D. Karp	16 July 1963	413786	H-526 M \$1.50 P \$5.60
36G-5	The Selection of Varactor Diodes for a 2X Multiplier	D. E. Crook	18 Mar. 1963	402827	H-507 M \$1.50 P \$10.80
36G-7	Statistics of Visibility in Satellite Communication Systems	C. L. Mack, Jr.	12 Sept. 1963	422340	H-546 M \$1.50 P \$7.00
37G-1	A Theorem on Fourier Integrals and an Application to the Theory of Measurement in Quantum Mechanics	H. E. Moses	5 Feb. 1963	296789	H-479 M \$1.50 P \$2.40
312-12 (Rev. 1)	The Use of Pulse Coding to Discriminate Against Clutter	R. Manasse	7 June 1961	260230	H-320 M \$1.50 P \$4.65

Group Reports

No.				DDC No.	Hayden Serial and Prices
312-17	Radar Coverage on ICBM Trajectories	P. A. Willmann	7 July 1958	236400	H-54 M \$1.50 P \$4.60
312-23	The Use of Radar Interferometer Measurements to Study Planets	R. Manasse	18 Mar. 1959	236235	H-77 M \$1.50 P \$5.50
† 312-26	Range and Velocity Accuracy from Radar Measurements	R. Manasse	3 Feb. 1955	236236	H-78 M \$1.50 P \$6.40
312G-0001	Radar and Optical Observations on Reentry of the Trailblazer I (D-58) Test Vehicle of June 4, 1959	H. L. Kasnitz	May 1960	249718	H-244 M \$1.50 P \$6.10
312G-0001-1	Radar and Optical Observations on Reentry of the Trailblazer I (D-58) Test Vehicle of March 29, 1960	H. L. Kasnitz	June 1960	255950	H-292 M \$1.50 P \$12.15
312G-0002	An S-Band System for Measurement of Scattering from Hypervelocity Models	H. G. Pascalar D. E. Crook	Oct. 1960	250799	H-249 M \$1.50 P \$11.80
312G-0004	200 MC Beacon Tracking System for Reentry Physics	E. F. Tarbox	14 Sept. 1961	264325	H-347 M \$1.50 P \$6.65
312G-0006	AC and Impulse Switching Techniques for Use with Magnetic Memories	R. E. McMahon	26 June 1961	259503	H-319 M \$1.50 P \$7.65
312G-1	Flashing Light Encoders	L. A. Jacobson	27 Nov. 1961	269588	H-372 M \$1.50 P \$6.15
† 312G-3	On the Turbulent Far-Wake in Incompressible Axisymmetric Flow	A. W. K. Metzner	15 Nov. 1961	266943	H-362 M \$1.50 P \$6.40
312G-4	Scattering from a Homogeneous Plasma Cylinder of Infinite Length	C. M. deRidder L. G. Peterson	15 Jan. 1962	274067	H-392 M \$1.50 P \$25.40
312G-5	Three-Degrees-of-Freedom Trajectory Analysis Program	K. Kresa P. A. Willmann	30 Jan. 1962	273134	H-384 M \$1.50 P \$7.90
312G-7	Optical Observations of Lincoln Laboratory Hypersonic Re-entry Vehicles Trailblazers Ic and Id	F. A. Wilson J. R. Bauer	16 May 1962	283416	H-418 M \$1.50 P \$12.15

Group Reports

No.				DDC No.	Hayden Serial and Prices
312G-8	Scattering from a Radially Varying Plasma Cylinder of Infinite Length	C. M. deRidder L. G. Peterson	4 Dec. 1962	294647	H-464 M \$1.50 P \$22.90
312G-9	Linearized Theory of Homogeneous Turbulence in a Compressible Fluid	A. W. K. Metzner	7 June 1962	278439	H-407 M \$1.50 P \$10.40
312G-10	Sources of Error in Microwave Transmission Measurement of Ionized Trails	C. Bressel G. H. Price	3 July 1962	283563	H-419 M \$1.50 P \$19.90
312G-12	Radar Data Recording System, Arbuckle Neck Site, Wallops Island, Virginia	A. C. Dyer D. Keren R. W. MacComb H. W. Rudolph, Jr.	23 Aug. 1962	401486	H-497 M \$1.50 P \$11.20
312G-13	Programs for Calculating a Predicted Radar Trajectory	K. Kresa M. R. Tausner	8 Aug. 1962	296540	H-478 M \$1.50 P \$10.15
315-3	108 Mcps Tracking Antenna for Millstone Hill Radar	M. E. Devane	1 Dec. 1959	244405	H-177 M \$1.50 P \$4.30
315G-0001	The Study of Waveguide Shorting Plungers	R. N. Assaly	25 Jan. 1961	251041	H-254 M \$1.50 P \$8.20
315G-1	Near-Field Characteristics of Array Antennas	L. J. Ricardi W. C. Danforth, Jr. M. H. Malone	17 Oct. 1961	266428	H-354 M \$1.50 P \$14.90
315G-2	A Mechanically Fixed Radar Antenna with Scanning Capability	L. J. Ricardi R. N. Assaly W. C. Danforth, Jr.	16 Oct. 1961	266048	H-353 M \$1.50 P \$7.15
315G-3	A Mechanical Duplexer for High-Powcred X-Band Radars	B. F. LaPage	8 Dec. 1961	271400	H-377 M \$1.50 P \$11.65
† 315G-4	Millstone Hill Zenith-Pointing Paraboloid	M. E. Devanc	7 Jan. 1963	401907	H-501 M \$1.50 P \$4.40
315G-5	A Discussion of the Use of a System of Passive Satellites in Stationary Orbits for Radio Communication	R. N. Assaly	28 Feb. 1963	402841	H-504 M \$1.50 P \$6.20
† 4G-0002	An Experimental Communication Center for Scientific and Technical Information	M. M. Kessler	31 Mar. 1960	254656	H-283 M \$1.50 P \$6.70

Group Reports

No.				DDC No.	Hayden Serial and Prices
† 4G-0007	A Millimeter Wave Anti-Missile Miss Distance Indicator	J. W. Meyer	16 Jan. 1961	249717	H-245 M \$1.50 P \$2.80
4G-0010	System Applications of Millimeter Waves	J. W. Meyer	17 Feb. 1961	251663	H-261 M \$1.50 P \$11.50
41G-0002	Practical Realization of Video and IF Matched Filters	D. R. Bromaghin	14 July 1960	241802	H-144 M \$1.50 P \$4.30
41G-0004	Doppler Analyzer Display	D. R. Bromaghin W. H. Drury W. F. Kelley	7 Mar. 1961	253514	H-274 M \$1.50 P \$10.30
41G-0008	A General Method for Controlling the Time and Frequency Envelopes of FM Signals	E. N. Fowle	5 June 1961	258055	H-309 M \$1.50 P \$4.40
41G-0009	A Method of Signal Design Employing Saddle Point Integration	R. D. Haggarty	19 May 1961	258617	H-312 M \$1.50 P \$5.90
41G-0011	On Entire Functions and a Fourier Integral Problem	J. A. Sheehan	5 July 1961	259568	H-314 M \$1.50 P \$4.90
41G-0012	An RF Multiple Beam Forming Technique	W. P. Delaney	9 Aug. 1961	262017	H-334 M \$1.50 P \$23.15
41G-0014	Some Recent Strip Transmission Line Measurements, Formulae, Techniques and Components for Phased Array Radar	D. H. Temme	19 Sept. 1961	264324	H-346 M \$1.50 P \$8.40
† 41G-1	Operational Characteristics of 16 Electron-Beam Parametric Amplifiers in a 900 Mcps Phased Array	J. H. Teele	6 Aug. 1962	288223	H-444 M \$1.50 P \$27.90
41G-3	Echolocation Systems of the Bat: Progress Report on Experimental Studies Conducted at F. A. Webster's Laboratory (1 Nov. 1961 - 1 Sept. 1962)	N. I. Durlach F. A. Webster §	14 Aug. 1963	417565	H-534 M \$1.50 P \$19.40
41G-5	Asymptotic Behavior of the Spectra of RF Pulses with Linear Frequency Modulation	S. L. Borison D. F. DeLong	9 Oct. 1963		H-545 M \$1.50 P \$6.40

Group Reports

No.				DDC No.	Hayden Serial and Prices
41G-6	Response Functions of Linear Time-Varying Systems	J. C. Lindenlaub	9 Sept. 1963	422263	H-544 M \$1.50 P \$9.60
42G-0001	Testing of Spun-Cast Parabolic Antennas	V. L. Lynn K. J. Keeping	14 July 1960	240111	H-128 M \$1.50 P \$10.00
42G-1	Commentary on a Paper by Kuklev Concerning the Influence of Noise on a Decoding Unit Using a Pulse Code Group	D. Middleton §	28 Dec. 1961	287162	H-436 M \$1.50 P \$14.40
42G-2	Phase Shifting to Avoid Interference Regions Between Antenna Elements	B. H. Labitt	23 May 1962	277561	H-395 M \$1.50 P \$3.60
43-2	Range Ambiguity Resolution in High-PRF Radars Through the Use of Multiple Values of PRF	R. C. Labonte	24 Feb. 1958	238227	H-114 M \$1.50 P \$10.90
43G-1	A Multicavity Klystron Computer Program Including Potential Depression Correction	S. F. Catalano C. Guay G. L. Guernsey R. L. Pease M. E. Schwarz, Jr.	29 Aug. 1963	420687	H-542 M \$1.50 P \$7.20
45-34	Notes on MTI Simulation Techniques	J. W. McGinn, Jr.	7 Oct. 1958	256978	H-322 M \$1.50 P \$4.40
45-34-1	Notes on MTI Simulation Techniques - Part II	J. W. McGinn, Jr.	29 Mar. 1959	256979	H-323 M \$1.50 P \$5.40
† 45-42	Radar Returns from Birds and Their Elimination from Radar Outputs	R. E. Richardson J. M. Stacey H. M. Kohler F. R. Naka	22 Dec. 1959	241994	H-147 M \$1.50 P \$7.90
† 46-37	Some Properties of Folded Cylinder TR Tubes at Intermediate UHF Powers	R. E. Slattery	30 Dec. 1958	245323	H-199 M \$1.50 P \$14.20
† 46-38	Analysis of Noise in Parametric Amplifiers of the Negative Conductance Type	C. Blake	22 Jan. 1959	245235	H-197 M \$1.50 P \$4.00
*† 46-39	A Frequency Domain Theory of Parametric Amplification	B. J. Leon	6 Apr. 1959	245236	H-198 M \$1.50 P \$25.60

Group Reports

No.				DDC No.	Hayden Serial and Prices
46-42	Resonant-Cavity Stabilization of Reflex-Klystron Oscillators	W. A. Andrews C. E. Chase H. Feldman	Jan. 1958	236884	H-96 M \$1.50 P \$12.10
† 46-43	Design Considerations for Cassegrainian and Gregorian Reflector Type Microwave System	K. J. Keeping	25 Jan. 1960	244400	H-174 M \$1.50 P \$17.20
46-45	Folded Cylinder TR for $3\frac{1}{8}$ - Inch Line	C. E. Muehe R. J. Carbone	1 Dec. 1959	240455	H-133 M \$1.50 P \$5.20
46-46	Tables of Some Properties of Liquid Helium	J. Fineman C. E. Chase	10 Aug. 1959	244404	H-175 M \$1.50 P \$8.50
46-47	A Simple Clean Pressure Gauge for the Millimeter Range	C. E. Muehe	18 Nov. 1959	244402	H-176 M \$1.50 P \$3.10
† 46-48	The Traveling Wave Resonator and High Power Microwave Testing	S. J. Miller	8 Jan. 1960	243855	H-166 M \$1.50 P \$16.00
46-50	Folded Cylinder UHF Duplexer for $6\frac{1}{8}$ -Inch Coaxial Line	C. E. Muehe	10 Mar. 1960	237003	H-98 M \$1.50 P \$4.00
46G-0001	A Horizontally-Polarized Omnidirectional Linear Array with a Cosecant- Squared Vertical Beam	F. I. Sheftman	31 Mar. 1960	236677	H-91 M \$1.50 P \$10.90
46G-0002	A Broadband Impedance Transition for Coaxial Line	C. B. Nelson	15 Apr. 1960	236273	H-84 M \$1.50 P \$5.50
46G-0003	Some Aspects of High Power Window Design	C. E. Muehe	3 Oct. 1960	244326	H-172 M \$1.50 P \$8.80
46G-0005	Primary Feed for Damp Ship Antenna	K. J. Keeping	15 July 1960	240172	H-131 M \$1.50 P \$15.40
46G-0006	The High Frequency Low Pressure Discharge	H. S. Bennett	24 Aug. 1961	262240	H-339 M \$1.50 P \$9.40
46G-0007	An Additional Consideration in the Design of Traveling Wave Resonators	S. J. Miller	26 Oct. 1960	246186	H-213 M \$1.50 P \$2.50

Group Reports

No.				DDC No.	Hayden Serial and Prices
46G-0008	A Wide Band Antenna Having Axially Symmetrical Patterns, High Gain and Low Side Lobes for All Polarizations	K. J. Keeping	30 Nov. 1960	248360	H-227 M \$1.50 P \$10.60
46G-0009	A Simple Approximate Expression for Converting Directly from Noise Figures in DB to Noise Temperatures	E. P. McCurley C. Blake	8 Dec. 1960	248912	H-231 M \$1.50 P \$2.20
46G-0010	A Family of Hybrids in Large Size Coaxial Line	W. A. Both	17 Jan. 1961	251245	H-256 M \$1.50 P \$4.30
46G-0012	Evaluation of Three Microwave Densitometers	S. J. Miller F. I. Sheftman	21 July 1961	260947	H-325 M \$1.50 P \$2.40
46G-0013	Some Equilibrium Properties of Elemental Supereconductors	J. Fineman	31 July 1961	261866	H-329 M \$1.50 P \$14.40
46G-1	Amplitude and Phase Deviation in Waveguides with Shunt Devices	A. H. Kessler	8 June 1962	285628	H-430 M \$1.50 P \$17.15
46G-2	The Surface Resistance of High-Current Microwave Discharges in Argon	C. E. Muehe T. J. Fessenden	20 Mar. 1963	403653	H-503 M \$1.50 P \$13.40
46G-3	A Simple Method for Designing an Elliptical Polarizer in Square Waveguide	A. H. Kessler W. J. Getsinger	28 May 1963	407624	H-514 M \$1.50 P \$4.80
46G-4	Experimental Evaluation of a 1000-Wavelength Antenna	W. D. Fitzgerald V. L. Lynn K. J. Keeping	13 May 1963	406109	H-512 M \$1.50 P \$8.40
† 47-16	The Theory of the Radiometer	E. J. Kelly D. H. Lyons W. L. Root	2 May 1958		H-304 M \$1.50 P \$9.65
47-19	Computer Simulation of the Pure-Phase Periodogram and the Doppler Phase Difference Integrator	S. F. Catalano E. J. Jones	12 Sept. 1958	261365	H-332 M \$1.50 P \$2.65
† 47-24	A Decoding Procedure for Polynomial Codes	I. S. Reed G. Solomon	6 Mar. 1959	241701	H-143 M \$1.50 P \$2.50
† 47-25	Note on Mixed Pre- and Post-Detection Integration of Doppler Echoes	D. H. Lyons	12 May 1959		H-184 M \$1.50 P \$4.00

Group Reports

No.				DDC No.	Hayden Serial and Prices
† 47-26	An IF Power Comparator with Large Dynamic Range	G. R. Curry M. Axelbank	12 May 1959	233571	H-43 M \$1.50 P \$8.80
† 47-28	Three-Phase Codes	D. F. DeLong	24 July 1959	241519	H-142 M \$1.50 P \$6.10
† 47-29	False Alarm Rate for the Doppler Phase Difference Integrator	I. S. Reed E. J. Jones H. M. Jones J. J. Mikulski	9 Oct. 1959	232331	H-42 M \$1.50 P \$7.90
† 47-30	On the Sensitivity of a Simple Continuously Calibrated Radiometer	E. J. Kelly J. W. McGinn	18 Dec. 1959	244836	H-188 M \$1.50 P \$4.30
† 47-32	Computer Applications of Boolean Functions of Time	I. S. Reed R. C. Jeffrey	15 Sept. 1959	244401	H-179 M \$1.50 P \$7.60
47-33	False Alarm Rate of the Doppler Phase Difference Integrator	J. J. Mikulski	30 Sept. 1959	244837	H-187 M \$1.50 P \$4.00
47-34	Some Counting and Inversion Formulas Involving Groups	G. Solomon	1 Dec. 1959	233869	H-52 M \$1.50 P \$5.20
† 47-35	Statistical Error Control of a Realizable Binary Symmetric Channel	I. S. Reed	1 Nov. 1959	241453	H-141 M \$1.50 P \$4.60
† 47-36	Detection of Signals in Non- Gaussian Noise	D. L. Clark	15 Dec. 1959	232332	H-41 M \$1.50 P \$5.50
† 47-37	Linear Recursive Sequences as Finite Difference Equations	G. Solomon	15 Mar. 1960	243047	H-157 M \$1.50 P \$5.20
† 47-38	The Scattering Matrix: Polar- ization, Power and Periodic Bodies from the Viewpoint of Matrix Theory	J. J. Mikulski	1 Mar. 1960	235249	H-69 M \$1.50 P \$9.40
47G-0001	The Characteristics of a Series of Fixed Coils at VHF	M. Axelbank G. R. McCully G. R. Curry	21 Apr. 1960	237852	H-110 M \$1.50 P \$5.50
47G-0003	A Direct-Coupled Multiplier for Acoustic Sonar	D. A. Cahlander	20 May 1960		H-103 M \$1.50 P \$17.20

Group Reports

No.				DDC No.	Hayden Serial and Prices
47G-0004	The Characteristics of a Series of Tunable Coils at VHF	M. Axelbank G. R. McCully G. R. Curry	3 June 1960	239661	H-122 M \$1.50 P \$6.10
47G-0006	Experimental Autocorrelation of Binary Codes	D. F. Delong	24 Oct. 1960	245803	H-204 M \$1.50 P \$4.30
47G-0007	Detection of Signals in Non-Gaussian Noise - Computation Results for the Linear and Limiting Detector Systems	J. W. McGinn, Jr.	7 Oct. 1960	246779	H-220 M \$1.50 P \$8.80
47G-0010	An Ultrasonic Receiver for Detecting Signals of Bats	A. Bertolini	1 Dec. 1960	248361	H-228 M \$1.50 P \$12.10
47G-0010 (Rev. 1)	An Ultrasonic Receiver for Detecting Signals of Bats	A. Bertolini	5 Dec. 1961	268702	H-371 M \$1.50 P \$9.90
47G-0011	Traveling-Wave Tubes in Radiometers	D. Keren	28 Dec. 1960	249572	H-239 M \$1.50 P \$8.80
† 47G-0012	Idler Circuits in Varactor Frequency Multipliers	B. L. Diamond	13 Dec. 1960		H-236 M \$1.95 P \$36.10
47G-0013	The Radar Measurement of Range, Velocity and Acceleration	E. J. Kelly	6 Jan. 1961	249468	H-243 M \$1.50 P \$11.20
47G-0014	An Amplifier for Driving Electrostatic Transducers	G. R. Curry	11 Apr. 1961	254953	H-284 M \$1.50 P \$2.75
47G-0015	Detection of Signals in Non-Gaussian Noise-Computation Results for the Ratio Detector System	J. W. McGinn, Jr.	3 Apr. 1961	254035	H-277 M \$1.50 P \$8.80
47G-0016	A Non-Gaussian Noise Generator	D. F. Mayer	28 Feb. 1961	252497	H-268 M \$1.50 P \$9.70
47G-0018	An S-Band Sweep-Frequency Receiver	D. Keren	17 Mar. 1961	253619	H-273 M \$1.50 P \$7.00
47G-0019	APC with Pulse Reference	T. J. Rey	9 Nov. 1960	255695	H-290 M \$1.50 P \$29.90

Group Reports

No.				DDC No.	Hayden Serial and Prices
† 47G-0020	A New Class of Codes	G. Solomon	28 Apr. 1961	255696	H-287 M \$1.50 P \$3.15
47G-0022	Quaternary Cyclic Codes	G. Solomon	13 Sept. 1961	263608	H-341 M \$1.50 P \$4.90
47G-0023	AFC for Discrete Frequencies	T. J. Rey	19 May 1961	259479	H-316 M \$1.50 P \$7.40
47G-0025	The Phase Periodogram Detector	E. J. Kelly	17 May 1961	256710	H-300 M \$1.50 P \$4.40
47G-0026	A Method for Finding Output Probability Densities	R. P. Wishner	20 June 1961	258918	H-311 M \$1.50 P \$4.40
47G-0027	Distribution of the Normalized Periodogram Detector	R. P. Wishner	26 June 1961	259478	H-315 M \$1.50 P \$7.90
47G-1	A Weight Formula for Group Codes	G. Solomon	9 Oct. 1961	264999	H-349 M \$1.50 P \$3.15
† 47G-2	Application of Statistical Estimation Procedures to the Identification Problem	R. P. Wishner J. C. Lindenlaub	3 Nov. 1961	266877	H-358 M \$1.50 P \$6.40
47G-3	The Design of Semiconductor- Diode Detector Circuits	G. R. Curry M. Axelbank	28 Feb. 1962	273510	H-388 M \$2.20 P \$43.65
† 47G-4	The Covariance Functions of Sine and Cosine Processes	J. W. McGinn, Jr.	26 Feb. 1962	273243	H-382 M \$1.50 P \$6.65
47G-5	Some Results for Higher- Order Varactor Frequency Multipliers	B. L. Diamond	21 Mar. 1963	404819	H-508 M \$2.05 P \$27.80
† 47G-6	Determination of Weight- to-Drag Ratio from Ratio Measurements	S. F. Catalano H. Schneider	8 Mar. 1963	401488	H-492 M \$1.50 P \$5.65
47G-7	Random Noise in Amplitude Comparison Monopulse Systems	J. W. McGinn, Jr.	7 Feb. 1963	400113	H-487 M \$1.50 P \$7.40
† 48-6	A Microwave Single Sideband Modulator	H. G. Pascalar	22 Apr. 1958	236271	H-68 M \$1.50 P \$8.80

Group Reports

No.				DDC No.	Hayden Serial and Prices
† 48-7	An Investigation of Frequency Stabilization Techniques for Backward Wave Oscillators	H. G. Pascalar	3 Aug. 1959	235356	H-74 M \$1.50 P \$12.40
48-8	Measurements on Type HA-34 Traveling Wave Tube Frequency Multiplier	D. E. Crook H. G. Pascalar	19 Aug. 1959	236252	H-74 M \$1.50 P \$2.80
† 48-9	Broadbanding of a Klystron Output Cavity	A. Saharian	4 Jan. 1960	244917	H-186 M \$2.65 P \$53.20
48G-1	Measurement of Field Strength on Resonator Boundaries by the Perturbation of Radiation Field	I. Hefni	8 Feb. 1962	274066	H-394 M \$1.50 P \$8.65
5G-0001	A Heuristic Program that Solves Symbolic Integration Problems in Freshman Calculus, Symbolic Automatic Integrator (SAINT)	J. R. Slagle	10 May 1961		H-295 M \$1.50 P \$27.90
† 50-1	A Computer Memory Using Magnetic Films	J. I. Raffel D. O. Smith	3 June 1959	230471	H-32 M \$1.50 P \$11.20
51-2	Techniques for Measuring the Angular Dispersion of the Easy Axis of Magnetic Films	T. S. Crowther	30 Mar. 1960	255697	H-289 M \$1.50 P \$4.15
51-8	The Lincoln Writer	J. T. Gilmore, Jr. R. E. Savell	6 Oct. 1959	235247	H-61 M \$1.50 P \$8.80
51-10	An Audio-Frequency Hysteresigraph for Thin Magnetic Films	D. D. Strassberg	16 Oct. 1959	252046	H-264 M \$1.50 P \$5.50
51-11	Techniques for Pulse Testing Magnetic Film Memory Elements	A. H. Anderson T. S. Crowther	29 Jan. 1960	255698	H-288 M \$1.50 P \$7.40
† 51G-0012	A Functional Description of the L-1 Computer	W. A. Clark, Jr.	28 Mar. 1960	236678	H-92 M \$1.50 P \$3.40
51G-0016	The TX-2 Electrostatic Display System	R. E. Savell	22 Aug. 1960	244325	H-173 M \$1.50 P \$7.60
51G-0017	Graphical Manipulation Techniques Using the Lincoln TX-2 Computer	H. H. Loomis	10 Nov. 1960	247861	H-226 M \$1.50 P \$9.10

Group Reports

No.				DDC No.	Hayden Serial and Prices
51G-0018	A Program for Testing Sequences of Random Numbers	L. Kleinrock	25 Oct. 1960	246044	H-209 M \$1.50 P \$8.80
51G-0021	PCM Television Bandwidth Reduction Using Pseudo-Random Noise	L. G. Roberts	30 Dec. 1960		H-233 M \$1.50 P \$13.00
51G-1	Improved TX-2 Gated Pulse Amplifier	J. H. Reaves	13 Feb. 1963	401489	H-495 M \$1.50 P \$15.40
51G-2	Automatic Memory Array Production System	C. G. Ryan	28 Feb. 1962	273238	H-385 M \$1.50 P \$7.15
51G-3	Deposited Connections and Wiring	E. A. Guditz	7 Sept. 1962	286545	H-431 M \$1.50 P \$14.40
51G-5	Storage-Time Delay Calculation for a Transistor Pulse Amplifier	J. H. Reaves	13 Feb. 1963	298065	H-483 M \$1.50 P \$9.40
51G-6	Preparation of Actual-Size Printed Wiring Layouts	E. A. Guditz	4 Dec. 1963	291893	H-460 M \$1.50 P \$4.40
51G-8	Programming Specifications for the FX-1 Computer	S. M. Ornstein J. E. Laynor	13 Mar. 1963	404508	H-505 M \$1.50 P \$10.20
† 52-4	New Averaging Program for the Millstone Hill Radar Site	F. Nagy	1 Apr. 1959	246776	H-219 M \$1.50 P \$3.10
52-7	Di-Pulse Logic	K. E. Perry	25 June 1959	255344	H-293 M \$1.50 P \$2.90
† 52G-0011	Some Remarks on Cyclic and Pseudo-Cyclic Codes	S. S. Shatz	9 Aug. 1960	241518	H-140 M \$1.50 P \$3.10
52G-0013	Galois Cohomology of Certain Modules Over Formal Power Series Fields	S. S. Shatz	8 Sept. 1960	243180	H-161 M \$1.50 P \$10.60
52G-0014	Inertial Selection for Magnetic Core Logic	R. H. Tancrell	11 Oct. 1960	244919	H-191 M \$1.50 P \$9.10
52G-0017	MIT Solar Plasma Experiment Instrumentation	E. F. Lyon	14 Apr. 1961	254954	H-285 M \$1.50 P \$10.50

Group Reports

No.				DDC No.	Hayden Serial and Prices
52G-0018	A Tunnel Diode Reflex Memory	K. E. Perry	17 Apr. 1961	254955	H-286 M \$1.50 P \$3.00
52G-0019	Interference Suppression Performance of Several FM Receivers Using Feedforward	B. H. Hutchinson	26 July 1961		H-351 M \$1.50 P \$38.40
52G-0020	A Cohomological Lemma and Its Application	S. S. Shatz	13 June 1961	258056	H-310 M \$1.50 P \$3.65
† 52G-1	A Solid State Buffer-Memory System to Handle Randomly Transmitted Information	R. M. Horowitz	13 Feb. 1962	273785	H-390 M \$1.50 P \$6.40
52G-2	Statistical Properties of the Dicon Receiver	J. A. Dumanian	2 Mar. 1962	275278	H-401 M \$1.50 P \$8.65
52G-3	Instructions for the Use of Mutual Moon Visibility Charts	F. Nagy	7 June 1962	276879	H-405 M \$1.50 P \$2.90
52G-4-I	Foundations of a Theory of Algebraic Codes. Part I: Local Theory	S. S. Shatz	20 Sept. 1962	286548	H-432 M \$1.50 P \$5.90
52G-4-II	Foundations of a Theory of Algebraic Codes. Part II: Global Theory	S. S. Shatz	20 Sept. 1962	286546	H-433 M \$1.50 P \$6.40
52G-5	The Descendent Theorem in Abelian Groups	S. S. Shatz	16 Nov. 1962	290801	H-456 M \$1.50 P \$2.90
52G-6	Assembly of Precision Ferrite Pot Core Inductors	R. S. Berg B. Howland	17 Dec. 1962	294646	H-463 M \$1.50 P \$3.40
53G-0039	Considerations in the Design of a Random-Access Cryosar Memory	R. C. Johnston	5 July 1960	240224	H-129 M \$1.50 P \$9.70
53G-0044	Cryosar Memory Design	R. C. Johnston	19 May 1961	257183	H-302 M \$1.50 P \$8.15
53G-0051	Device Requirements for a Large Cryosar Memory	R. C. Johnston	27 Dec. 1960	249057	H-234 M \$1.50 P \$2.80
53G-0052	A Magneto-Optic Apparatus for the Dynamic Study of Ferromagnetic Surface Domains	F. W. Sarles, Jr.	23 Dec. 1960		H-242 M \$3.00 P \$63.70

Group Reports

No.				DDC No.	Hayden Serial and Prices
† 53G-0059	Proposal for Magnetic Domain-Wall Storage and Logic	D. O. Smith	31 May 1961	257771	H-307 M \$1.50 P \$4.65
53G-0063	Surface Anisotropy Energy Density of a Ferromagnet	R. F. Soohoo	18 Aug. 1961	261588	H-333 M \$1.50 P \$2.90
53G-0064	A Microwave Magnetic Microscope	R. F. Soohoo	23 Aug. 1961	262542	H-324 M \$1.50 P \$2.90
53G-0065	Ferromagnetic Resonance in Yttrium Iron Garnet Film	R. F. Soohoo	28 Aug. 1961	262945	H-338 M \$1.50 P \$1.65
† 54-4	Physical Machines and Their Abstract Counterparts	M. Minsky	23 Mar. 1959		H-272 M \$1.50 P \$37.90
† 54-5	Theory of Formal Systems	R. M. Smullyan	15 Apr. 1959		H-60 M \$2.40 P \$70.60
† 54-9	Hierarchies in Pattern Recognition	U. Neisser	9 Oct. 1959		H-421 M \$1.50 P \$4.90
54-10	Human Recognition of Hand-Printed Characters	U. Neisser P. Weene	13 Oct. 1959		H-424 M \$1.50 P \$2.40
† 54-19	A Theory of Cognitive Processes	U. Neisser	23 Feb. 1960	243178	H-160 M \$1.50 P \$7.30
† 54G-0020	Topics in Dynamic Programming. II: Truncated Policies	M. L. Freimer	18 Apr. 1960		H-82 M \$1.60 P \$39.10
54G-0021	Linear Statistical Classification	A. Laemmel	16 May 1960	237125	H-101 M \$1.50 P \$3.40
54G-0022	Machine Correction of Garbled English Text	M. B. Evens C. K. McElwain F. VanHoosen	1 June 1960	237700	H-107 M \$1.50 P \$7.30
54G-0025	The Independence of Attributes in Memory	U. Neisser A. Warmoth	28 June 1960	239344	H-118 M \$1.50 P \$3.10
54G-0027	A 6-Symbol 7-State Universal Turing Machine	M. L. Minsky	19 Aug. 1960	242594	H-151 M \$1.50 P \$3.10

Group Reports

No.				DDC No.	Hayden Serial and Prices
54G-0028	Machine Processing of Line Drawings	L. Hodes	7 Mar. 1961	252850	H-271 M \$1.50 P \$5.20
54G-0029	A 6-Symbol 6-State Universal Turing Machine	M. Minsky	12 Apr. 1961	259727	H-318 M \$1.50 P \$4.40
55-22	Some Connections Between Linear Recursive Sequences and Error-Correcting Codes: Informal Lectures	E. Weiss	22 Jan. 1960	239172	H-123 M \$1.50 P \$38.80
55G-0024	Residue Class Rings and Linear Recursive Sequences	E. Weiss	4 May 1960	236397	H-86 M \$1.50 P \$3.10
55G-0027	Coset Leaders	E. C. Dade	24 Aug. 1960	242595	H-152 M \$1.50 P \$3.70
55G-0028	Compression and Coding	E. Weiss	11 Oct. 1960	244918	H-190 M \$1.50 P \$1.60
55G-0030	The Shortest Path Through Many Points of a Set of Dimension α	J. R. Kinney	1 Dec. 1960	247667	H-224 M \$1.50 P \$2.80
55G-0031	A Limit Theorem for a Position Dependent Branching Process	H. E. Conner	23 Mar. 1961		H-275 M \$1.50 P \$13.00
55G-0033	Mathematical Foundations of Scattering Theory	R. T. Prosser	5 Apr. 1961	254142	H-281 M \$1.50 P \$6.40
55G-0035	Generalized Reed-Muller Codes	E. Weiss	11 May 1961	256547	H-299 M \$1.50 P \$3.90
55G-0037	Tangential Limits of Functions from the Class S_α	J. R. Kinney	9 May 1961	256370	H-298 M \$1.50 P \$1.65
† 55G-1	A Survey of Functional Integration with Applications of the Wiener Integral	T. I. Seidman	16 Oct. 1961	265200	H-350 M \$1.50 P \$15.15
55G-2	An Acquirable Code	E. Weiss D. Gorenstein §	9 July 1962	281751	H-411 M \$1.50 P \$2.90

Group Reports

No.				DDC No.	Hayden Serial and Prices
55G-3	Computing Good Coefficients for a Linear Evaluation Function	J. R. Slagle	11 Mar. 1963	401774	H-496 M \$1.50 P \$3.60
† 58-2	Remembering the Present States of a Number of Variables	D. B. Yntema G. E. Mueser	16 Mar. 1959	243179	H-462 M \$1.50 P \$4.90
58-6	The Reliability of Empirical Waiting-Time Distributions	J. E. K. Smith L. Klem	19 Aug. 1959	234563	H-57 M \$1.50 P \$5.20
58G-0011	An Introduction to Digital Computing	B. F. Green, Jr.	18 Aug. 1960	242597	H-153 M \$1.50 P \$14.50
58G-0013	Remembering the Present States of a Number of Variables. III: Why It Is Difficult to Keep Track of Several Variables with the Same Set of States	D. B. Yntema G. E. Mueser	17 Aug. 1960	242283	H-148 M \$1.50 P \$4.60
58G-0018	Visual Acuity Under Blue Illumination	R. T. Mitchell R. R. Mitchell	10 Feb. 1961	251570	H-260 M \$1.50 P \$4.60
58G-0024	Information Processing Language V (IPL-V) Special Procedures for the Lincoln 709/7090 Version	B. F. Green, Jr. A. Wolf	14 Aug. 1961	261867	H-330 M \$1.50 P \$11.40
61G-1	Design Curves for a Circular Polarizer	W. C. Danforth, Jr. L. J. Ricardi	19 Aug. 1963	417184	H-536 M \$1.50 P \$2.40
61G-2	A Reflection-Type Polarizer for the West Ford Antennas	B. F. LaPage	30 Dec. 1963	440430	H-565 M \$1.50 P \$7.60
61G-3	The Aperture Efficiency of Some Horn-Fed Paraboloidal Reflectors	A. R. Dion	30 Dec. 1963	431779	H-566 M \$1.50 P \$4.60
62G-1	Vocoded Speech	B. Gold	7 May 1963	407512	H-515 M \$1.50 P \$5.60
62G-2	Characteristics and Applications of Solid-State Operational Amplifiers	J. N. Harris K. E. Perry	23 July 1963	413473	H-528 M \$1.50 P \$14.20
62G-3	Pointing the Lincoln Laboratory Building B Roof Antenna in Real Time Using the CDC 160-A Computer	J. D. Drinan	26 June 1962	410546	H-524 M \$1.50 P \$9.80

Group Reports

No.				DDC No.	Hayden Serial and Prices
62G-4	A Qualitative Description of Sequential Decoding	I. L. Lebow	12 July 1963	413949	H-529 M \$1.50 P \$6.20
62G-5	An Investigation of the Fano Sequential Decoding Algorithm by Computer Simulation	G. Blustein K. L. Jordan, Jr.	12 July 1963	412632	H-525 M \$1.50 P \$4.80
62G-6	Strategy for a Two-Way Feed- back Communication System	F. G. Popp	5 Dec. 1963	426203	H-552 M \$1.50 P \$9.40
62G-8	The Volume Common to Two Intersecting Radar Beams	W. R. Crowther	31 Oct. 1963	425547	H-551 M \$1.50 P \$3.00
64G-1	Performance of Coherent Detection Systems Using Decision Directed Channel Measurement	J. G. Proakis P. R. Drouilhet	27 June 1963	409819	H-521 M \$1.50 P \$5.40
64G-3	Optimum Pulse Transmissions for Multipath Channels	J. G. Proakis	16 Aug. 1963	416639	H-532 M \$1.50 P \$8.20
64G-4	Computer Programs for Proc- essing Signals Received in Radar Astronomy Experiments	P. L. Fleck, Jr. T. J. Goblick, Jr.	16 Aug. 1963	419091	H-540 M \$1.50 P \$5.80
64G-5	The Doubly Non-Central F- Distribution Expressed in Finite Terms	R. Price	13 Sept. 1963	420434	H-543 M \$1.50 P \$10.60
64G-6	Further Considerations in the Use of Large Seismometer Arrays	N. M. Abramson	14 Nov. 1963	424594	H-550 M \$1.50 P \$3.20
65G-1	A Note on Power Require- ments for Digitalized Voice Transmission	B. Reiffen	6 May 1963	405622	H-513 M \$1.50 P \$3.20
65G-2	Optimum Jamming of In- coherently Received FSK Signals	L. I. Bluestein	26 June 1963	413482	H-537 M \$1.50 P \$5.80
65G-3	An Efficient Demodulator for an Analog Pseudo-Noise Multiplex System	H. L. VanTrees	2 July 1963	410795	H-523 M \$1.50 P \$5.80
65G-4	A New Method for Delay- Modulating a Pulse Train	L. I. Bluestein	28 May 1963	406108	H-511 M \$1.50 P \$3.80

Group Reports

No.				DDC No.	Hayden Serial and Prices
65G-5	An Introduction to Feedback Demodulation	H. L. VanTrees	16 Aug. 1963	416586	H-531 M \$1.50 P \$12.20
65G-6	A Note on Sequential Decoding Applied to Large Alphabet Incoherent Channels - R_{comp} Determination	M. H. Check B. Reiffen	31 May 1963	410883	H-519 M \$1.50 P \$2.80
65G-7	Delay in Data Transmission Through General Networks	B. J. Moriarty	18 Dec. 1963	427258	H-553 M \$1.50 P \$12.20
65G-8	Average Scattering Cross Section of Randomly-Oriented Dipoles	M. H. Check B. Reiffen	30 Dec. 1963	427756	H-555 M \$1.50 P \$4.00
66G-1	Cyclotomic Fields and Their Real Subfields	E. Weiss	9 Aug. 1963	416409	H-530 M \$1.50 P \$2.20
† 71G-1-I	Distortions and Stresses of Paraboloidal Surface Structures	J. W. Mar § F. Y. M. Wan	9 Jan. 1962	296298	H-476 M \$1.50 P \$24.40
† 71G-1-II	Distortions and Stresses of Paraboloidal Surface Structures. Part II. The Membrane Behavior	J. W. Mar § F. Y. M. Wan	4 Jan. 1963	296491	H-477 M \$1.80 P \$41.90
71G-1-III	Distortions and Stresses of Paraboloidal Surface Structures. Part III.	J. W. Mar § F. Y. M. Wan	15 Aug. 1963	417081	H-535 M \$1.70 P \$20.00
*† 71G-2	A Theoretical Analysis and Experimental Study of the Behavior of Panels of Isotropic and Orthotropic Material Under Static and Dynamic Loads	H. A. Balmer § E. A. Witmer § W. A. Loden §	Feb. 1962	273137	H-383 M \$2.05 P \$33.65
71G-3	Dynamic Buckling of Space Frame Radome Models	R. A. Muldoon	15 Feb. 1962	273237	H-387 M \$1.50 P \$18.90
71G-4	Preliminary Investigations on the Mechanical Design of Hardened Foam Radomes	R. A. Muldoon	3 May 1963	275713	H-402 M \$1.50 P \$10.65
71G-5	Air Loads and Pressure Distribution on a Parabolic Antenna Model	J. Bicknell § R. Yeghiayan §	30 Oct. 1962	290512	H-451 M \$1.50 P \$23.15

Group Reports

No.				DDC No.	Hayden Serial and Prices
† 75-4	Experimental Investigation of Wind-Induced Vibrations in Antenna Members	W. Weaver, Jr.	26 Aug. 1959	231946	H-40 M \$1.70 P \$30.40
75G-0005	Antenna Range Area Construction, Antenna Test Facility, Bedford, Massachusetts	T. J. Lambie	19 Mar. 1960	237349	H-105 M \$1.50 P \$16.30
76-5	Maximum Temperatures in 55-Ft. Rigid Radomes for Temperate and Extreme Desert Environments	S. L. Hensel, Jr.	Nov. 1958		H-498 M \$1.50 P \$18.20
76G-0002	Some Considerations on Shell Theory	K. Washizu	Oct. 1960	252204	H-265 M \$1.95 P \$53.20
† 76G-0003	The Electrical Evaluation of 110 Foot Diameter Metal Space-Frame Model Radomes and the CW-413 Radome	A. Cohen A. W. Maltese	25 Apr. 1961	256858	H-294 M \$1.50 P \$10.15
8G-0012	Semi-Metals – A New Horizon	B. Lax	24 Apr. 1961	256267	H-296 M \$1.50 P \$9.65
† 81G-0022	Ground State Properties of Nuclear Matter	R. D. Puff	22 July 1960	241463	H-138 M \$1.50 P \$18.70
81G-0026	Symmetry Property of Configurational Entropy	W. H. Kleiner	11 Jan. 1961	249989	H-246 M \$1.50 P \$10.60
81G-0028	The Generation of Microwave Phonons and Their Use in Studying the Spin Phonon Interaction	P. H. Carr	7 Mar. 1961		H-266 M \$1.50 P \$30.00
81G-0030	Symmetry of Configurational Entropy in Lattice Statistics	W. H. Kleiner	22 Mar. 1961	263341	H-340 M \$1.50 P \$8.65
81G-0031	Simple Theory of Tunneling and Its Dependence on a Magnetic Field	P. N. Argyres B. Lax	24 May 1961	257184	H-303 M \$1.50 P \$9.65
81G-1	Broadening in the Master Equation	P. L. Kelley	25 Oct. 1961	266360	H-352 M \$1.50 P \$6.40
† 82-8	Circulators at 70 and 140 kMcps	J. B. Thaxter G. S. Heller	10 July 1959	227946	H-23 M \$1.50 P \$3.40

Group Reports

No.				DDC No.	Hayden Serial and Prices
† 82-9	Millimeter Instrumentation for Solid State Research	G. S. Heller	20 July 1959	230102	H-29 M \$1.50 P \$8.10
† 82G-0017	Areas for Research and Applications in the Millimeter Range of the Electromagnetic Spectrum	G. S. Heller P. E. Tannenwald	6 May 1960	237002	H-97 M \$1.50 P \$10.90
82G-0021	Atmospheric Absorption of 10-400 kMcps Radiation: Summary and Bibliography to 1960	E. S. Rosenblum	15 Aug. 1960	242598	H-150 M \$1.50 P \$7.90
82G-0029	Determination of Magneto-elastic Coupling by Spin Wave Resonance	M. H. Seavey, Jr.	31 July 1961	261601	H-328 M \$1.50 P \$6.40
82G-1	100 Kcps Modulation Paramagnetic Resonance Spectrometers for Centimeter and Millimeter Wavelengths	W. H. From E. D. Mills	26 Apr. 1962	282039	H-410 M \$1.50 P \$9.90
83G-0031	Concerning the Identity of the Predominant Acceptors in GaSb	A. J. Strauss E. B. Owens	24 Apr. 1961	256889	H-301 M \$1.50 P \$2.15
84-4	Tabulated Energy Values of Optical Transitions Observed in Experiments on the Zeeman Effect of Impurity Levels in Silicon	S. Zwerdling K. J. Button B. Lax	11 Feb. 1960	233266	H-24 M \$1.50 P \$6.10
85G-0004	An Infrared Image Tube for the Spectral Region of 1 to 40 Microns	R. J. Keyes	5 July 1960	258795	H-313 M \$1.50 P \$2.40
† 85G-0008	Photo and Thermal Effects in Compensated Zinc Doped Germanium	R. J. Keyes	21 Oct. 1960	245671	H-203 M \$1.50 P \$5.20
85G-0011	Free Carrier Faraday and Voigt Effects for a Cubic Crystal with a Pb-Te Like Band Structure	J. Halpern	25 Aug. 1961	262923	H-337 M \$1.50 P \$9.40

Group Reports

No.				<u>DDC No.</u>	<u>Hayden Serial and Prices</u>
1964-1	An Approximate Method for the Calculation of Scalar Scattering by Two-Dimensional Bodies	A. D. MacGillivray A. F. Smith	9 Jan. 1964	431781	H-564 M \$1.50 P \$3.40
1964-2	The Angular Resolution of Multiple Targets	J. R. Sklar F. C. Schweppe	14 Jan. 1964	430185	H-560 M \$1.50 P \$48.80
1964-3	Backscatter Radar from Some Low Cross-Section Shapes	A. F. Smith	16 Jan. 1964	431780	H-567 M \$1.50 P \$7.80
1964-4	Optimization of Signals	F. C. Schweppe	16 Jan. 1964	430345	H-557 M \$1.50 P \$10.20
1964-9	Diplexer Using Side-Wall Couplers in One-Half Height Large X-Guide	J. A. Kostriza	17 Jan. 1964	429200	H-557 M \$1.50 P \$3.60
1964-10	A High-Performance He ³ Refrigerator	C. J. Rauch	29 Jan. 1964	433544	H-570 M \$1.50 P \$6.60
1964-11	Error Analysis of a Digital Monopulse Radar	M. Schneider N. T. Gaarder	30 Jan. 1964	430297	H-561 M \$1.50 P \$3.60
1964-12	Fuel-Optimal Singular Control of a Nonlinear Second Order System	M. Athans M. D. Canon	30 Jan. 1964	430272	H-559 M \$1.50 P \$10.80
1964-14	Electromagnetic Back-scattering Cross Section of a Circular Cylindrical Section	S. L. Borison	18 Feb. 1964	433714	H-568 M \$1.50 P \$7.80
1964-15	The Representation of Seismic Waves in Frequency-Wave Number Space	E. J. Kelly	6 Mar. 1964	433611	H-569 M \$1.50 P \$9.20

JOURNAL ARTICLES

JA No.

- | | | | |
|----|--|---|---|
| 1 | Change of Electron Temperature in an Electron Beam | H. M. Mott-Smith | J. Appl. Phys. <u>24</u> , 249 (1953) |
| 2 | The Solution of the Boltzmann Equation for a Shock Wave | H. M. Mott-Smith | Phys. Rev. <u>82</u> , 885 (1954) |
| 3 | A Model of the Auditory Threshold and Its Application to the Problem of the Multiple Observer | M. H. Smith, Jr.
E. A. Wilson | Psychol. Monographs <u>67</u> , 9 (1953) |
| 6 | Mixing of States and Antiferromagnetism | H. P. Hanson | Phys. Rev. <u>89</u> , 1154 (1953) |
| 7 | The Phase-Bistable Transistor Circuit | R. H. Baker
I. L. Lebow
R. H. Rediker
I. S. Reed | Proc. IRE <u>41</u> , 1119 (1953) |
| 9 | Relativistic Dynamics of a Charged Particle in Crossed Magnetic and Electric Fields with Application to the Planar Magnetron | L. Gold | J. Appl. Phys. <u>25</u> , 683 (1954) |
| 10 | Method of Time-Free Solutions for Radioactive Decay and Radionuclide Production | L. Gold | J. Appl. Phys. <u>24</u> , 88 (1953) |
| 11 | Wide-Band Data Transmitter | D. J. Gray
V. P. Gurske
W. E. Morrow, Jr. | Electronics <u>26</u> , No. 9, 168 (1953) |
| 13 | On the Diffusion of Decaying Particles in a Radial Electric Field | J. Keilson | J. Appl. Phys. <u>24</u> , 1397 (1953) |
| 14 | The Transient Response of Transistor Switching Circuits | I. L. Lebow
R. H. Baker | Proc. IRE <u>42</u> , 938 (1954) |
| 15 | On the Nature of the Transcendental Curves Associated with the Relativistic Trajectories of Charged Particles | L. Gold | J. Appl. Phys. <u>25</u> , 691 (1954) |
| 16 | Potential Distribution and Prevention of a Space-Charge-Induced Minimum . . . | G. C. Sponsler | J. Appl. Phys. <u>25</u> , 282 (1954) |
| 18 | Orbital Effect in Neutron-Electron Magnetic Scattering | W. H. Kleiner | Phys. Rev. <u>90</u> , 168 (1953) |

Journal Articles

JA No.

- | | | | |
|----|---|---|---|
| 21 | A Two-Electron Example of Ferromagnetism | J. C. Slater
H. Statz
G. F. Koster | Phys. Rev. <u>91</u> , 1323 (1953) |
| 22 | Exact Interpolation of Band-Limited Functions | A. Kohlenberg | J. Appl. Phys. <u>24</u> , 1432 (1953) |
| 23 | Direct Viewing of an Ultrasonic Beam in a Transparent Solid | F. L. McNamara
T. F. Rogers | J. Acoust. Soc. Am. <u>25</u> , 338 (1953) |
| 32 | Magnetic and Dielectric Amplifiers | D. A. Buck | Sec. III-C-3, <u>Dielectric Materials and Applications</u> , A. R. von Hippel, Ed. (Wiley/Technology Press, New York, 1954) |
| 33 | Eigenfunctions of S^2 by a Spin-Operator Method | G. W. Pratt, Jr. | Phys. Rev. <u>92</u> , 278 (1953) |
| 35 | The Refractive Index of Germane | M. Green
P. H. Robinson | J. Phys. Chem. <u>57</u> , 938 (1953) |
| 36 | A More Exact Treatment of the Equations Describing Dielectric Relaxation and Carrier Motion in Semiconductors | J. Keilson | J. Appl. Phys. <u>24</u> , 1198 (1953) |
| 37 | On Diffusion in an External Field and the Adjoint Source Problem | J. Keilson | Quart. Appl. Math. <u>12</u> , 435 (1955) |
| 42 | A Suggested Modification of Noise Theory | J. Keilson | Quart. Appl. Math. <u>12</u> , 71 (1954) |
| 43 | An Historical Note on the Autocorrelation Function | P. E. Green, Jr. | Proc. IRE (Correspondence) <u>41</u> , 1519 (1953) |
| 46 | Fused-Quartz Ultrasonic Delay-Line Memory | D. A. Spaeth
T. F. Rogers
S. J. Johnson § | Electronics <u>16</u> , No. 12, 151 (1953) |
| 47 | Rapid Interferometric Analysis of Germane-Hydrogen Mixtures | M. Green
P. H. Robinson | Anal. Chem. <u>25</u> , 1913 (1953) |
| 48 | Measurement of Permeability Tensor in Ferrites | J. O. Artman
P. E. Tannenwald | Phys. Rev. <u>91</u> , 1014 (1953) |
| 49 | Transistor Shift Registers | R. H. Baker
I. L. Lebow
R. E. McMahon | Proc. IRE <u>42</u> , 1152 (1954) |
| 53 | Staircase Generator Counts Pulses | N. O. Sokal
I. L. Resnick | Electronics <u>27</u> , No. 3, 187 (1954) |
| 54 | A Possible Mechanism for $1/f$ Noise Generation in Semiconductor Filaments | L. Bess | Phys. Rev. <u>91</u> , 1569 (1953) |

JA No.

- | | | | |
|-----|---|---|--|
| 58 | Thyratron-Vacuum Tube Counter | R. W. Hofheimer | Electronics <u>26</u> , No. 11, 198 (1953) |
| 61 | Switching Time in Junction Diodes and Junction Transistors | R. H. Kingston | Proc. IRE <u>42</u> , 829 (1954) |
| 64 | Lower Modes of a Concentric Line Having a Helical Inner Conductor | L. Stark | J. Appl. Phys. <u>25</u> , 1155 (1954) |
| 66 | Information Loss Attending the Decision Operation in Detection | D. Middleton | J. Appl. Phys. <u>25</u> , 127 (1954) |
| 67 | Pedestal-Removing Slicer Circuit | N. O. Sokal
G. M. Nonnemaker | Electronics <u>27</u> , No. 3, 220 (1954) |
| 68 | PPI Light-Spot-Brightness Probability Distributions | G. C. Sponsler
F. L. Shader | J. Appl. Phys. <u>25</u> , 1271 (1954) |
| 72 | An Analysis of the Detection of Repeated Signals in Noise by Binary Integration | J. V. Harrington | Trans. IRE <u>IT-1</u> , 1 (1955) |
| 86 | Coding for Constant-Data-Rate Systems. Part I - A New Error-Correcting Code | R. A. Silverman
M. Balser | Proc. IRE <u>42</u> , 1428 (1954) |
| 87 | Water Vapor and the "Channel" Effect in n-p-n Junction Transistors | R. H. Kingston | Phys. Rev. <u>93</u> , 346 (1954) |
| 91 | Transient Response of a p-n Junction | B. Lax
S. F. Neustadter | J. Appl. Phys. <u>25</u> , 1148 (1954) |
| 92 | Ferrite Phase Shifters in Rectangular Waveguide | B. Lax
K. J. Button
L. M. Roth | J. Appl. Phys. <u>25</u> , 1413 (1954) |
| 93 | A Comparison of Metals and Ferrites for High-Speed Pulse Operation | D. R. Brown
D. A. Buck
N. Menyuk | Trans. IEE, Commun. Electron. No. 46, 634 (1955) |
| 96 | A Theory of Domain Creation and Coercive Force in Polycrystalline Ferromagnetics | J. B. Goodenough | Phys. Rev. <u>95</u> , 917 (1954) |
| 97 | Anomalous Forward Switching Transient in p-n Junction Diodes | N. T. Jones
R. H. Kingston
S. F. Neustadter | J. Appl. Phys. <u>26</u> , 210 (1955) |
| 100 | Magnetic Materials for Digital-Computer Components.
1. A Theory of Flux Reversal in Polycrystalline Ferromagnetics | N. Menyuk
J. B. Goodenough | J. Appl. Phys. <u>26</u> , 8 (1955) |
| 104 | The Scattering of Electromagnetic Waves by Turbulent Atmospheric Fluctuations | F. M. H. Villars
V. F. Weisskopf | Phys. Rev. <u>94</u> , 232 (1954) |

Journal Articles

JA No.

- | | | | |
|----------|---|---|---|
| 113 | Preparation and Isolation of Carrier-Free As^{74} from Germanium Cyclotron Targets | M. Green
J. A. Kafalas | J. Chem. Phys. <u>22</u> , 760 (1954) |
| 118 | Directional Properties of the Cyclotron Resonance in Germanium | B. Lax
H. J. Zeiger
R. N. Dexter
E. S. Rosenblum | Phys. Rev. <u>93</u> , 1418 (1954) |
| 119 | The Interaction of Impurity Atoms with Dislocations in Germanium | A. D. Kurtz
S. A. Kulin | Acta Met. <u>2</u> , 352 (1954) |
| 120 | Effect of Dislocations on Minority Carrier Lifetime in Germanium | S. A. Kulin
A. D. Kurtz | Acta Met. <u>2</u> , 354 (1954) |
| 121
R | Two Formulae Involving Generalized Legendre Functions of Integral and Nonintegral Index | G. C. Sponsler | J. Math. and Phys. <u>34</u> , 50 (1955) |
| 122 | Discrimination Transfer along a Pitch Continuum | R. A. Baker
S. W. Osgood | J. Exptl. Psychol. <u>48</u> , 241 (1954) |
| 124 | Simplified LCAO Method for the Periodic Potential Problem | J. C. Slater
G. F. Koster | Phys. Rev. <u>94</u> , 1498 (1954) |
| 127 | Theory of Radio Transmission by Tropospheric Scattering Using Very Narrow Beams | H. G. Booker §
J. T. deBettencourt | Proc. IRE <u>43</u> , 281 (1955) |
| 131 | A Point Emitter-Junction Collector Transistor | R. H. Kingston | J. Appl. Phys. <u>25</u> , 513 (1954) |
| 132 | Statistics of Electromagnetic Radiation Scattered by a Turbulent Medium | R. A. Silverman
M. Balser | Phys. Rev. <u>96</u> , 560 (1954) |
| 137 | Measurement of Carrier Lifetimes in Germanium and Silicon | D. T. Stevenson
R. J. Keyes | J. Appl. Phys. <u>26</u> , 190 (1955) |
| 141 | Folded Unipole Antennas | J. Leonhard
R. D. Mattuck
A. J. Poté | Trans. IRE, PGAP <u>AP-3</u> , 111 (1955) |
| 145 | A Radio-Frequency Nondestructive Readout for Magnetic-Core Memories | B. Widrow | Trans. IRE, PGEC <u>EC-3</u> , 12 (1954) |
| 146 | New Ferrite-Core Memory Uses Pulse Transformers | W. N. Papian | Electronics <u>28</u> , No. 3, 194 (1955) |
| 148 | Wave Functions for Impurity Levels | G. F. Koster
J. C. Slater | Phys. Rev. <u>95</u> , 1167 (1954); |
| 150 | Anisotropy of Cyclotron Resonance in Germanium | B. Lax
H. J. Zeiger
R. N. Dexter | Physica <u>20</u> , 818 (1954). |

Journal Articles

JA No.

- | | | | |
|-----|--|--|--|
| 152 | On the Fourier Series Expansion of Random Functions | W. L. Root
T. S. Pitcher | Ann. Math. Stat. <u>26</u> , 313 (1955) |
| 156 | Coding for Constant-Data-Rate Systems: Part II - Multiple-Error-Correcting Codes | M. Balser
R. A. Silverman | Proc. IRE <u>43</u> , 728 (1955) |
| 158 | A Method of Scalogram Analysis Using Summary Statistics | B. F. Green, Jr. | Psychometrika <u>21</u> , 79 (1956) |
| 159 | Theory of Scattering in Solids | G. F. Koster | Phys. Rev. <u>95</u> , 1436 (1954) |
| 160 | Magnetic Scattering of Slow Neutrons from O ₂ Gas | W. H. Kleiner | Phys. Rev. <u>97</u> , 411 (1955) |
| 161 | Measurements of the Recombination Velocity at Germanium Surfaces | D. T. Stevenson
R. J. Keyes | Physica <u>20</u> , 1041 (1954) |
| 162 | Trajectory-Tracer Study of Helix- and Band-Type Post-deflection Acceleration | G. C. Sponsler | J. Appl. Phys. <u>26</u> , 676 (1955) |
| 168 | Anisotropy of Cyclotron Resonance in Germanium | R. N. Dexter
H. J. Zeiger
B. Lax | Phys. Rev. <u>95</u> , 557 (1954);
Physica <u>20</u> , 818 (1954) |
| 169 | Channels and Excess Reverse Current in Grown Germanium p-n Junction Diodes | A. L. McWhorter
R. H. Kingston | Proc. IRE <u>42</u> , 1376 (1954) |
| 178 | Transistors Convert Sine Waves to Pulses | I. L. Lebow
R. E. McMahon
R. H. Baker | Electronics <u>27</u> , No. 5, 160 (1954) |
| 180 | Digital Computer Plug-in Units and Associated Equipment | J. N. Harris
F. L. McNamara | Elec. Eng. <u>74</u> , 326 (1955) |
| 188 | Speed and Accuracy of Reading Polar Coordinates on a Horizontal Plotting Table | B. F. Green, Jr.
L. K. Anderson | J. Appl. Psychol. <u>39</u> , 227 (1955) |
| 196 | The Tactual Identification of Shapes for Coding Switch Handles | B. F. Green, Jr.
L. K. Anderson | J. Appl. Psychol. <u>39</u> , 219 (1955) |
| 208 | Effective Masses of Electrons in Silicon | R. N. Dexter
B. Lax
A. F. Kip
G. F. Dresselhaus | Phys. Rev. <u>96</u> , 222 (1954) |
| 209 | Effective Masses of Holes in Silicon | R. N. Dexter
B. Lax | Phys. Rev. <u>96</u> , 223 (1954) |
| 210 | Analogue Study of Electron Trajectories | G. C. Sponsler
B. F. Logan
G. R. Welti | J. Assoc. Comp. Mach. <u>2</u> , 28 (1955) |

Journal Articles

JA No.

212	Extension of Nonreciprocal Ferrite Devices to the 500-3000 Megacycle Frequency Range	R. H. Fox	J. Appl. Phys. <u>26</u> , 128 (1955)
213	Theory of Ionic Ordering, Crystal Distortion, and Magnetic Exchange Due to Covalent Forces in Spinels	J. B. Goodenough A. L. Loeb	Phys. Rev. <u>98</u> , 391 (1955)
216	Propagation of Short Radio Waves in a Normally Stratified Troposphere	T. J. Carroll R. M. Ring	Proc. IRE <u>43</u> , 1384 (1955)
218	Simplified Impurity Calculation	G. F. Koster J. C. Slater	Phys. Rev. <u>96</u> , 1208 (1954)
227	Extension of Hund's Rule	G. F. Koster	Phys. Rev. <u>98</u> , 514 (1955)
228	An Analysis of Perceptual Confusions Among Some English Consonants	G. A. Miller P. E. Nicely	J. Acoust. Soc. Am. <u>27</u> , 338 (1955)
230	Calculation of the Space Charge, Electric Field, and Free Carrier Concentration at the Surface of a Semiconductor	R. H. Kingston S. F. Neustadter	J. Appl. Phys. <u>26</u> , 718 (1955)
231	A Practical Method of Designing RC Active Filters	R. P. Sallen E. L. Key	Trans. IRE, PGCT <u>CT-2</u> , 74 (1955)
236	Antiferromagnetism	G. W. Pratt, Jr.	Phys. Rev. <u>97</u> , 926 (1955)
237	Water-Vapor-Induced n-Type Surface Conductivity on p-Type Germanium	R. H. Kingston	Phys. Rev. <u>98</u> , 1766 (1955)
238	‡ Analysis of Magnetic Amplifiers by the Use of Difference Equations	P. R. Johannessen §	Trans. IEE, Commun. Electron. No. 16, 700 (1955)
243	‡ Ion-Bombardment-Cleaning of Germanium and Titanium as Determined by Low-Energy Electron Diffraction	H. E. Farnsworth § R. E. Schlier § T. H. George § R. M. Burger §	J. Appl. Phys. <u>26</u> , 252 (1955)
245	The Purification of Germanium: The Germanium Tetrachloride - Arsenic Trichloride System	M. Green J. A. Kafalas	J. Chem. Soc. <u>5943</u> , 1604 (1955)
251 R	Germanium-Oxygen System	E. S. Candidus D. Tuomi	J. Chem. Phys. <u>23</u> , 588 (1955)
252	Synchronizing Magnetic Drum Storage Speed	E. W. Bivans	Electronics <u>28</u> , No. 8, 140 (1955)
258	Variation of Noise with Ambient in Germanium Filaments	T. G. Maple L. Bess H. A. Gebbie	J. Appl. Phys. <u>26</u> , 490 (1955)

JA No.

261	Color Coding in a Visual Search Task	B. F. Green, Jr. L. K. Anderson	J. Exptl. Psychol. <u>51</u> , 19 (1956)
262	Effect of Differential Adaptation of the Eyes upon Threshold Sensitivity	R. T. Mitchell L. H. Liaudansky	J. Opt. Soc. Am. <u>45</u> , 831 (1955)
264	On a Class of Binary Sequences	N. Zierler	Proc. Am. Math. Soc. <u>7</u> , 675 (1956)
265	Density of States Curve for Nickel	G. F. Koster	Phys. Rev. <u>98</u> , 901 (1955)
267	On Entropy Equivalence in the Time- and Frequency-Domains	R. Price	Proc. IRE (Correspondence) <u>43</u> , 484 (1955)
270	Magnetic Materials for Digital Computer Components. II. Magnetic Characteristics of Ultra-Thin Molybdenum-Permalloy Cores	N. Menyuk	J. Appl. Phys. <u>26</u> , 692 (1955)
272	Excited Donor Levels in Silicon	W. H. Kleiner	Phys. Rev. <u>97</u> , 1722 (1955)
273	Measurement of Susceptibility Tensor in Ferrites	J. O. Artman P. E. Tannenwald	J. Appl. Phys. <u>26</u> , 1124 (1955)
275	A Note on the Envelope and Phase-Modulated Components of Narrow-Band Gaussian Noise	R. Price	Trans. IRE, PGIT <u>IT-1</u> , 9 (1955)
278	Multiple Resonances in Cobalt Ferrite	P. E. Tannenwald	Phys. Rev. <u>99</u> , 463 (1955)
287	The Cryotron - A Superconductive Computer Component	D. A. Buck	Proc. IRE <u>44</u> , 482 (1956)
298	Design Procedure for Junction Transistor Flip-Flops	R. E. McMahon	Electronic Design (October 1955)
299	Propagation and Plasma Oscillation in Semiconductors with Magnetic Fields	B. Lax L. M. Roth	Phys. Rev. <u>98</u> , 548 (1955)
308	Figure of Merit for Microwave Ferrites at Low and High Frequencies	B. Lax	J. Appl. Phys. <u>26</u> , 919 (1955)
315	New Magnetic Materials	J. B. Goodenough F. E. Vinal	MIT Reports on Research <u>6</u> , 1 (1955)
320	Investigations of Angular Scattering and Multipath Properties of Tropospheric Propagation of Short Radio Waves Beyond the Horizon	J. H. Chisholm P. A. Portmann J. T. deBettencourt J. F. Roche	Proc. IRE <u>43</u> , 1317 (1955).
323	Hall Theory in n-Type Germanium	L. Gold	Phys. Rev. <u>99</u> , 596 (1955)

Journal Articles

JA No.

- | | | | |
|-----|---|--|---|
| 331 | A Qualitative Characterization of Blaschke Products in a Half-Plane | E. J. Akutowicz | Am. J. Math. <u>78</u> , 677 (1956) |
| 334 | Direct-Reading Noise Figure Indicator | C. E. Chase | Electronics <u>28</u> , 161, No. 11, (1955) |
| 338 | Some Remarks on Statistical Detection | W. L. Root
T. S. Pitcher | Trans. IRE, PGIT <u>IT-1</u> , 33 (1955) |
| 342 | Theory of New Ferrite Modes in Rectangular Waveguide | B. Lax
K. J. Button | J. Appl. Phys. <u>26</u> , 1184 (1955) |
| 343 | New Ferrite Mode Configurations and Their Applications | B. Lax
K. J. Button | J. Appl. Phys. <u>26</u> , 1186 (1955) |
| 344 | Investigations of Scattering and Multipath Properties of Ionospheric Propagation at Radio Frequencies Exceeding the MUF | W. G. Abel
J. T. deBettencourt
J. F. Roche
J. H. Chisholm | Proc. IRE <u>43</u> , 1255 (1955) |
| 347 | High Pressure Leak Detector | W. Paul
D. M. Warschauer | Rev. Sci. Instr. <u>26</u> , 731 (1955) |
| 348 | Determination of Zinc in Presence of Iron and Nickel | J. Lowen
A. L. Carney | Anal. Chem. <u>27</u> , 1965 (1955) |
| 351 | UHF Long-Range Communications Systems | G. L. Mellen
W. E. Morrow
A. J. Poté
W. H. Radford
J. B. Wiesner | Proc. IRE <u>43</u> , 1269 (1955) |
| 352 | Diversity Reception in UHF Long-Range Communications | C. L. Mack | Proc. IRE <u>43</u> , 1281 (1955) |
| 357 | Theory of the Role of Covalence in the Perovskite-Type Manganites (La, M (II)) MnO_3 | J. B. Goodenough | Phys. Rev. <u>100</u> , 564 (1955) |
| 365 | Ferromagnetic Resonance in Manganese Ferrite Single Crystals | P. E. Tannenwald | Phys. Rev. <u>100</u> , 1713 (1955) |
| 369 | Maximal Orthogonal Orbitals | G. W. Pratt, Jr.
S. F. Neustadter | Phys. Rev. <u>101</u> , 1248 (1956) |
| 370 | Relative Influence of Majority and Minority Carriers on Excess Noise in Semiconductor Filaments | L. Bess | J. Appl. Phys. <u>26</u> , 1377 (1955) |
| 373 | Vacuum and Vibration Speed Assembly of Core Memory Planes | E. A. Guditz
L. B. Smith | Electronics <u>29</u> , No. 2, 214 (1956) |

JA No.

- | | | | |
|----------|---|--|--|
| 380
R | A Programmed Variable-Rate Counter for Generating the Sine Function | J. N. Harris | Trans. IRE, PGEC <u>EC-5</u> , 21 (1956) |
| 381 | The Uniqueness of Laplace Integrals | E. J. Akutowicz | Duke Math. J. <u>23</u> , 165 (1956) |
| 382 | Sensitive Thyatron Relay Operates on Microampere | J. N. Harris | Electronics <u>28</u> , No. 12, 172 (1955) |
| 384 | On the Maximum Signal/Noise Ratio Realizable from Several Noisy Signals | D. G. Brennan | Proc. IRE <u>43</u> , 1530 (1955) |
| 387 | Conductivity, Hall Effect and Magnetoresistance in n-Type Germanium, and Their Dependence on Pressure | G. B. Benedek
W. Paul
H. Brooks | Phys. Rev. <u>100</u> , 1129 (1955) |
| 394 | Statistics and Galvanomagnetic Effects in Germanium and Silicon with Warped Energy Surfaces | B. Lax
J. G. Mavroides | Phys. Rev. <u>100</u> , 1650 (1955) |
| 397 | On the Scattering of Radio Waves by Turbulent Fluctuations of the Atmosphere | F. Villars
V. F. Weisskopf | Proc. IRE <u>43</u> , 1232 (1955) |
| 403 | Hall Effect in Oriented Single Crystals of n-Type Germanium | W. M. Bullis
W. E. Krag | Phys. Rev. <u>101</u> , 580 (1956) |
| 404
R | Effect of Electric Field on Surface Recombination Velocity in Germanium | J. E. Thomas, Jr.
R. H. Rediker | Phys. Rev. <u>101</u> , 984 (1956) |
| 405
R | Cyclotron Absorption in Bismuth | R. N. Dexter
B. Lax | Phys. Rev. <u>100</u> , 1216 (1955) |
| 410
R | An Analysis of Signal Detection and Location by Digital Methods | G. P. Dinneen
I. S. Reed | Trans. IRE, PGIT <u>IT-2</u> , 29 (1956) |
| 413
R | Review of Germanium Surface Phenomena | R. H. Kingston | J. Appl. Phys. <u>27</u> , 101 (1956) |
| 416
R | Effect of Dislocations on the Minority Carrier Lifetime in Semiconductors | A. D. Kurtz
S. A. Kulin
B. L. Averbach | Phys. Rev. <u>101</u> , 1285 (1956) |
| 418 | Microwave Resonance Relations in Anisotropic Single Crystal Ferrites | J. O. Artman | Proc. IRE <u>44</u> , 1284 (1956) |
| 421 | Progress of Tropospheric Propagation Research Related to Communications Beyond the Horizon | J. H. Chisholm | Trans. IRE, PGCS <u>CS-4</u> , 6 (1956) |
| 422
R | Study of $1/f$ Noise in Semiconductor Filaments | L. Bess | Phys. Rev. <u>103</u> , 72 (1956) |

Journal Articles

JA No.

424 R	Absolute Measurement of Receiver Noise Figures at UHF	E. Maxwell B. J. Leon	Trans. IRE, PGMTT <u>MITT-4</u> , 81 (1956)
428	Rapid, Precise Measurements of Krypton Adsorption and the Surface Area of Coarse Particles	A. J. Rosenberg	J. Am. Chem. Soc. <u>78</u> , 2929 (1956)
430	Bistable Circuit Uses Single Triode	R. W. Holtheimer	Electronics <u>29</u> , No. 3, 230 (1956)
433	Effects of Growth Rate on Crystal Perfection and Lifetime in Germanium	A. D. Kurtz S. A. Kulin B. L. Averbach	J. Appl. Phys. <u>27</u> , 1287 (1956)
443 R	First-Order Markov Process Representation of Binary Radar Data Sequences	G. C. Sponsler	Trans. IRE, PGIT <u>IT-3</u> , 56 (1957)
446	On the Determination of the Phase of a Fourier Integral, I	E. J. Akutowicz	Trans. Am. Math. Soc. <u>83</u> , 179 (1956)
447 R	Unrestricted Hartree-Fock Method	G. W. Pratt, Jr.	Phys. Rev. <u>102</u> , 1303 (1956)
448 R	Analysis of Cyclotron Absorption in Bismuth	B. Lax K. J. Button H. J. Zeiger L. M. Roth	Phys. Rev. <u>102</u> , 715 (1956)
449	Galvanomagnetic Theory for Electrons in Germanium and Silicon: Magnetoresistance in the High-Field Saturation Limit	L. Gold L. M. Roth	Phys. Rev. <u>103</u> , 61 (1956)
456	Estimating the Ratio of Steady Sinusoidal Signal to Random Noise from Experimental Data	M. L. Phillips	Proc. IRE (Correspondence) <u>44</u> , 692 (1956)
459 R	Interpretation of Domain Patterns Recently Found in BiMn and SiFe Alloys	J. B. Goodenough	Phys. Rev. <u>102</u> , 356 (1956)
462 R	Designing for Reliability	N. H. Taylor	Proc. IRE <u>45</u> , 811 (1957)
476	The Spectral Resolution of Watson Transforms	E. J. Akutowicz	Proc. Cambridge Phil. Soc. <u>54</u> , 368 (1958)
480 R	Session on Rapid-Access Storage, Including the Use of Magnetic Cores for Storage and Switching	N. H. Taylor	Proc. IEE (London) <u>103</u> , 289 (1956)
482 R	Some Effects of Unequal Spatial Distribution on the Detectability of Radar Targets	P. E. Nicely G. A. Miller	J. Exptl. Psychol. <u>53</u> , 195 (1957)
488	On the Determination of the Phase of a Fourier Integral, II	E. J. Akutowicz	Proc. Am. Math. Soc. <u>8</u> , 234 (1957)

Journal Articles

JA No.

- | | | | |
|----------|---|---|--|
| 494
R | Relaxation Time of Surface States on Germanium | R. H. Kingston
A. L. McWhorter | Phys. Rev. <u>103</u> , 534 (1956) |
| 495
R | High Pressure Tubing | W. Paul
D. M. Warschauer | Rev. Sci. Instr. <u>27</u> , 418 (1956) |
| 496
R | Infrared Windows for Helium Cryostats | D. M. Warschauer
W. Paul | Rev. Sci. Instr. <u>27</u> , 419 (1956) |
| 498
R | Theory of Cyclotron Resonance Absorption in Many-Valley Semiconductors | L. Gold
W. M. Bullis
R. A. Campbell | Phys. Rev. <u>103</u> , 1250 (1956) |
| 507
R | Anisotropy of Cobalt-Substituted Mn Ferrite Single Crystals | P. E. Tannenwald
M. H. Seavey, Jr. | Proc. IRE <u>44</u> , 1343 (1956) |
| 510
R | Serial Effects in Auditory Threshold Judgments | W. J. McGill § | J. Exptl. Psychol. <u>53</u> , 297 (1957) |
| 512 | Microwave Resonance Relations in Anisotropic Single Crystal Ferrites | J. O. Artman | Phys. Rev. <u>105</u> , 62 (1957) |
| 514
R | Transistorized Receiver for Vehicular Radio | S. Schwartz | Electronics <u>29</u> , No. 10, 217 (1956) |
| 516
R | Classical Boltzmann Theory of Cyclotron Resonance for Warped Surfaces | H. J. Zeiger
B. Lax
R. N. Dexter | Phys. Rev. <u>105</u> , 495 (1957) |
| 517 | Cyclotron Resonance Experiments in Silicon and Germanium | R. N. Dexter
H. J. Zeiger
B. Lax | Phys. Rev. <u>104</u> , 637 (1956) |
| 519
R | Strip Line Hybrid Junction | H. G. Pascalar | Trans. IRE, PGMTT <u>MTT-5</u> , 23 (1957) |
| 521 | Frequency and Loss Characteristics of Microwave Ferrite Devices | B. Lax | Proc. IRE <u>44</u> , 1368 (1956) |
| 522 | Coil for Pulsed Megagauss Fields | S. Foner
H. H. Kolm | Rev. Sci. Instr. <u>27</u> , 547 (1956) |
| 524
R | Vibrating Sample Magnetometer | S. Foner | Rev. Sci. Instr. <u>27</u> , 548 (1956) |
| 528
R | Sets of Measures Not Admitting Necessary and Sufficient Statistics of Subfields | T. S. Pitcher | Ann. Math. Stat. <u>28</u> , 267 (1957) |
| 532 | Measurement of Reproducibility | B. W. White
E. Saltz | Psychol. Bull. <u>54</u> , 81 (1957) |
| 534
R | Positivity in H-Systems and Sufficient Statistics | T. S. Pitcher | Trans. Am. Math. Soc. <u>85</u> , 166 (1957) |

Journal Articles

JA No.

- | | | | |
|----------|---|--|--|
| 541 | Marconi's Last Paper, "On the Propagation of Microwaves over Considerable Distances" | T. J. Carroll | Proc. IRE (Correspondence) <u>44</u> , 1056 (1956) |
| 546
R | A Bibliography of Soviet Literature on Noise, Correlation, and Information Theory | P. E. Green, Jr. | Trans. IRE, PGIT <u>1T-2</u> , 91 (1956) |
| 549 | The Anisotropy of the Hot-Electron Problem in Semiconductors with Spheroidal Energy Surfaces | L. Gold | Phys. Rev. <u>104</u> , 1580 (1956) |
| 552 | Galvanomagnetic Effects in Oriented Single Crystals of n-Type Germanium | W. M. Bullis | Phys. Rev. <u>109</u> , 292 (1958) |
| 558
R | Microwave Propagation Well Beyond the Horizon from Marconi to the Present | T. J. Carroll | L'Onde Elec. (Paris) <u>37</u> , 421 (1957) |
| 561 | On the Preparation and Regeneration of Clean Germanium Surfaces | P. H. Robinson
A. J. Rosenberg
H. C. Gatos | J. Appl. Phys. <u>27</u> , 962 (1956) |
| 566
R | Transistorized-Core Memory | R. E. McMahon | Trans. IRE, PGI <u>I-6</u> , 157 (1957) |
| 566A | The Noise Problem in a Coincident-Current Core Memory | F. L. McNamara | Trans. IRE, PGI <u>I-6</u> , 153 (1957) |
| 574
R | Some Observations on Scattering by Turbulent Inhomogeneities | M. Balser | Trans. IRE, PGAP <u>AP-5</u> , 383 (1957) |
| 576
R | Magnetization Reversal in Thin Films | D. O. Smith | Phys. Rev. <u>104</u> , 1280 (1956) |
| 577
R | Boosting Transistor Switching Speed | R. H. Baker | Electronics <u>30</u> , No. 3, 190 (1957) |
| 580 | On the Estimation in the Presence of Noise of the Impulse Response of a Random, Linear Filter | G. L. Turin | Trans. IRE, PGIT <u>1T-3</u> , 5 (1957) |
| 581
R | A Decomposition Theorem for the Integers Modulo q | N. Zierler | Am. Math. Monthly <u>65</u> , 31 (1958) |
| 583
R | Power Generation and Distribution at Air Defense Computing Centers | J. J. Gano | Elec. Eng. <u>75</u> , 1098 (1956) |
| 591 | A Radar Detection Philosophy | W. M. Siebert | Trans. IRE, PGIT <u>1T-2</u> , 204 (1956) |
| 592 | Systems Analysis of Discrete Markov Processes | R. W. Sittler | Trans. IRE, PGCT <u>CT-3</u> , 257 (1956) |

JA No.

- | | | | |
|----------|--|---|--|
| 594 | Single-Sideband Techniques in UHF Long-Range Communications | W. E. Morrow, Jr.
C. L. Mack
B. E. Nichols
J. Leonhard | Proc. IRE <u>44</u> , 1854 (1956) |
| 601
R | Rotating Electrometer for Comparative Work Function Measurements | H. H. Kolm | Rev. Sci. Instr. <u>27</u> , 1046 (1956) |
| 605 | A Revised Law of Comparative Judgment | W. P. Harris | Psychometrika <u>22</u> , 189 (1957) |
| 613
R | Arithmetical Analysis of Digital Computing Nets | R. C. Jeffrey | J. Assoc. Comp. Mach. <u>3</u> , 360 (1956) |
| 617 | Optimum Detection of Random Signals in Noise, with Application to Scatter-Multipath Communication, I | R. Price | Trans. IRE, PGIT <u>IT-2</u> , 125 (1956) |
| 618
R | Broad-Band Balanced Duplexers | C. W. Jones | Trans. IRE, PGMTT <u>MTT-5</u> , 4 (1957) |
| 620
R | Ferrites as Microwave Circuit Elements | G. S. Heller | Proc. IRE <u>44</u> , 1386 (1956) |
| 621
R | Variational Principles for Guided Electromagnetic Waves in Anisotropic Materials | W. Hauser | Quart. Appl. Math. <u>16</u> , 159 (1958) |
| 628 | Galvanomagnetic Theory for n-Type Germanium and Silicon: Hall Theory and General Behavior of Magnetoresistance | L. Gold
L. M. Roth | Phys. Rev. <u>107</u> , 358 (1957) |
| 633
R | Unsupported Area High Pressure Seal | D. M. Warschauer
W. Paul | Rev. Sci. Instr. <u>28</u> , 62 (1957) |
| 634
R | Kinetic Theory of Space Charge, I: Cutoff Character of the Static Magnetron | L. Gold | J. Electron. and Control <u>3</u> , 97 (1957) |
| 639
R | Space Charge in the Relativistic Magnetron | L. Gold | J. Electron. and Control <u>3</u> , 87 (1957) |
| 642
R | Ferromagnetic Resonance in Thin Films of Permalloy | P. E. Tannenwald
M. H. Seavey, Jr. | Phys. Rev. <u>105</u> , 377 (1957) |
| 647 | The Output Signal-to-Noise Ratio of Correlation Detectors | P. E. Green, Jr. | Trans. IRE, PGIT <u>IT-3</u> , 10 (1957) |
| 649
R | The Elimination of Motor-Generator Sets as Transient Buffers for SAGE Computers | J. J. Gano | Trans. IEE, Commun. Electron. No. 32, 468 (1957) |

Journal Articles

JA No.

650	Magneto-Band Effects in InAs and InSb in DC and High-Pulsed Magnetic Fields	S. Zwerdling R. J. Keyes S. Foner H. H. Kolm B. Lax	Phys. Rev. <u>104</u> , 1805 (1956)
651	Infrared Cyclotron Resonance in Bi, InSb and InAs with High-Pulsed Magnetic Fields	R. J. Keyes S. Zwerdling S. Foner H. H. Kolm B. Lax	Phys. Rev. <u>104</u> , 1804 (1956)
657 R	Thermistors for the Gradual Application of Heater Voltage in Thermionic Tubes	J. J. Gano G. F. Sandy	Trans. IRE, PGEC <u>EC-7</u> , 61 (1958)
658 R	Inverse Bessel Functions: Solution for the Zeros	L. Gold	J. Math. Phys. <u>36</u> , 167 (1957)
667	Measurement of Ionospheric Path-Phase for Oblique Incidence	R. Price P. E. Green, Jr.	Nature <u>179</u> , 372 (1957)
669 R	Possible Interpretation of Cyclotron Resonance Absorption in Graphite	B. Lax H. J. Zeiger	Phys. Rev. <u>105</u> , 1466 (1957)
675	Simulation Techniques for the Test and Evaluation of Real-Time Computer Programs	D. R. Israel	J. Assoc. Comp. Mach. <u>4</u> , 354 (1957)
681	Exchange and Superexchange Coupling Between Conduction Electrons and d Electrons in Magnetic Materials	G. W. Pratt, Jr.	Phys. Rev. <u>106</u> , 53 (1957)
682	New Computer – Does More with Less	F. P. Hazel	MIT Reports on Research <u>8</u> , 3 (1956)
683 R	The Effect of Signal Rate on Performance in Visual Monitoring	H. M. Jenkins	Am. J. Psychol. <u>71</u> , 647 (1959)
686 R	The Autocorrelogram of a Complete Carrier Wave Received over the Ionosphere at Oblique Incidence	R. Price	Proc. IRE <u>45</u> , 879 (1957)
702 R	Oscillatory Magneto-Absorption of the Direct Transition in Germanium	S. Zwerdling B. Lax	Phys. Rev. <u>106</u> , 51 (1957)
704 R	On the Theory of Anisotropic Obstacles in Cavities	W. Hauser	Quart. J. Mech. Appl. Math. <u>11</u> , 112 (1958)
707	Multipath Transmission	P. E. Green, Jr. R. Price	MIT Reports on Research <u>8</u> , 4 (1957)

JA No.

- | | | | |
|----------|--|---|--|
| 716
R | Concerning the Effect of Illumination Upon Measurements of Gas Adsorption | A. J. Rosenberg
C. S. Martel, Jr. | J. Phys. Chem. <u>61</u> , 512 (1957) |
| 724
R | Radar Horizon and Propagation Loss | M. I. Skolnik | Proc. IRE (Correspondence) <u>45</u> , 697 (1957) |
| 730 | Very Narrow Base Diode | R. H. Rediker
D. E. Sawyer | Proc. IRE <u>45</u> , 944 (1957) |
| 735 | 3-D Printed Circuits Speed Memory Plane Assembly | E. A. Guditiz | MIT Reports on Research <u>8</u> , 3 (1957) |
| 743
R | Experimental Investigations of the Electronic Band Structure of Solids | B. Lax | Revs. Modern Phys. <u>30</u> , 122 (1958) |
| 747
R | Smooth Random Functions Need Not Have Smooth Correlation Functions | D. G. Brennan | Proc. IRE (Correspondence) <u>45</u> , 1016 (1957) |
| 752 | Investigation of Long-Distance Over-Water Tropospheric Propagation at 400 Mcps | H. E. Dinger §
W. E. Garner §
D. H. Hamilton, Jr.
A. E. Teachman | Proc. IRE <u>46</u> , 1401 (1958) |
| 763
R | Hydrolysis of $A^{III}B^V$ Inter-metallic Compounds | J. A. Kafalas
H. C. Gatos
M. J. Button | J. Am. Chem. Soc. <u>79</u> , 4260 (1957) |
| 766
R | Three-Dimensional Printed Wiring | E. A. Guditiz | Electronics <u>30</u> , No. 6, 160 (1957) |
| 768
R | Rare Earth Nickel Oxides | A. Wold
B. Post §
E. Banks | J. Am. Chem. Soc. <u>79</u> , 4911 (1957) |
| 770
R | UHF Radar Observations of Aurora | S. J. Fricker
R. P. Ingalls
M. L. Stone
S. C. Wang | J. Geophys. Res. <u>62</u> , 527 (1957) |
| 772
R | High Field Antiferromagnetic Resonance in MnF_2 Using Pulsed Fields and Millimeter Wavelengths | S. Foner | Phys. Rev. <u>107</u> , 683 (1957) |
| 773
R | Wave Functions and Energy Levels for Fe as Found by the Unrestricted Hartree-Fock Method | J. H. Wood §
G. W. Pratt, Jr. | Phys. Rev. <u>107</u> , 995 (1957) |
| 774
R | High-Speed Computer Stores 2.5 Megabits | W. N. Papian | Electronics <u>30</u> , No. 10, 162 (1957) |
| 780
R | Singular Functions Associated with Markov Chains | J. R. Kinney | Proc. Am. Math. Soc. <u>9</u> , 603 (1958) |

Journal Articles

JA No.

783 R	Reaction of Germanium with Aqueous Solutions. I. Dissolution Kinetics in Water Containing Dissolved Oxygen	W. W. Harvey H. C. Gatos	J. Electrochem. Soc. <u>105</u> , 654 (1958)
787	A Communication Technique for Multipath Channels	R. Price P. E. Green, Jr.	Proc. IRE <u>46</u> , 555 (1958)
791 R	Magnetoresistance of Holes in Germanium and Silicon with Warped Energy Surfaces	J. G. Mavroides B. Lax	Phys. Rev. <u>107</u> , 1530 (1957)
793 R	Optical Properties of Semiconductors Under Hydrostatic Pressure - I. Germanium	W. Paul D. M. Warschauer	J. Phys. Chem. Solids <u>5</u> , 89 (1958)
807	Coils for the Production of High Intensity Pulsed Magnetic Fields	S. Foner H. H. Kolm	Rev. Sci. Instr. <u>28</u> , 799 (1957)
810	3-D Packaging for Transistorized Circuits	J. A. Wereb, Jr.	Electronics <u>30</u> , No. 11, 244 (1957)
811 R	Work-Function Studies of Germanium Crystals Cleaned by Ion Bombardment	J. A. Dillon, Jr. & H. E. Farnsworth	J. Appl. Phys. <u>28</u> , 174 (1957)
813	Extend Output with Regulated Flip-Flop	R. W. Hofheimer	Electronics <u>30</u> , No. 12, 182 (1957)
814 R	Lanthanum Rhodium and Lanthanum Cobalt Oxides	A. Wold B. Post & E. Banks	J. Am. Chem. Soc. <u>79</u> , 6365 (1957)
817	Solid-State Maser Amplifier	A. L. McWhorter J. W. Meyer	Phys. Rev. <u>109</u> , 312 (1958)
823 R	On the Theorem of Gleason and Marsh	N. Zierler	Proc. Am. Math. Soc. <u>9</u> , 236 (1958)
831 R	Apparatus for the Direct Measurement of Adsorption on Solid Surfaces from Liquids	J. A. Kafalas H. C. Gatos	Rev. Sci. Instr. <u>29</u> , 47 (1958)
835	Theory of Antiferromagnetic-Ferromagnetic Transitions in Dilute Magnetic Alloys and in the Rare Earths	G. W. Pratt, Jr.	Phys. Rev. <u>108</u> , 1233 (1957)
839	Studies on Group III-V Inter-metallic Compounds	C. R. Kolm S. A. Kulin B. L. Averbach	Phys. Rev. <u>108</u> , 965 (1957)
840	Band Structure and Cohesive Energy of Potassium Chloride	L. P. Howland	Phys. Rev. <u>109</u> , 1927 (1958)
843	The Status of Microwave Applications of Ferrites and Semiconductors	B. Lax	Trans. IRE, PGMTT <u>MTT-6</u> , 6 (1958)

JA No.

- | | | | |
|----------|---|--|--|
| 845
R | Optical Properties of Semi-conductors Under Hydrostatic Pressure. II. Silicon | W. Paul
D. M. Warschauer | J. Phys. Chem. Solids <u>5</u> , 102 (1958) |
| 848 | Statistics of Polymer Molecular Size Distribution for an Invariant Number of Propagating Chains | L. Gold | J. Chem. Phys. <u>28</u> , 91 (1958) |
| 849
R | Parametric Solution for the Diode Space Charge at Relativistic Energies | L. Gold | J. Electron. and Control <u>3</u> , 564 (1957) |
| 854 | The Persistron - A Steady Information Display Panel for a Pulsed Signal Input | J. R. Leibowitz
W. L. Gardner | Trans. IRE, PGED <u>ED-5</u> , 115 (1958) |
| 855
R | Generating Characters for Cathode-Ray Readout | K. E. Perry
E. J. Aho | Electronics <u>31</u> , No. 1, 72 (1958) |
| 862
R | Some Magnetic and Crystallographic Properties of the System $\text{Li}_x^+\text{Ni}_{1-2x}^{++}\text{Ni}_x^{+++}\text{O}$ | J. B. Goodenough
D. G. Wickham
W. J. Croft | J. Phys. Chem. Solids <u>5</u> , 107 (1958) |
| 864
R | Measurement of Ferrite Isolation at 1300 Mcps | G. S. Heller
G. W. Catuna | Trans. IRE, PGMTT <u>MTT-6</u> , 97 (1958) |
| 875 | Oscillatory Magneto-Absorption in Semiconductors | S. Zwerdling
B. Lax
L. M. Roth | Phys. Rev. <u>108</u> , 1402 (1957) |
| 881
R | Loss of Signal Detectability in Band-Pass Limiters | R. Manasse
R. M. Lerner
R. Price | Trans. IRE, PGIT <u>IT-4</u> , 34 (1958) |
| 884
R | On the Theory of Anisotropic Obstacles in Waveguides | W. Hauser | Quart. J. Mech. Appl. Math. <u>11</u> , 427 (1958) |
| 886
R | Microvariations of Water Vapor in the Lower Troposphere with Applications to Long-Range Radio Communications | J. R. Bauer
J. H. Meyer | Trans. Am. Geophys. Un. <u>39</u> , 624 (1958) |
| 888
R | The Reaction of Germanium with Nitric Acid Solutions; I. The Dissolution Reaction; II. Passivity of Germanium | M. C. Lavine
H. C. Gatos | J. Electrochem. Soc. <u>105</u> , 487 (1958) |
| 890
R | Theoretical Analysis of the Operation of the Field-Displacement Ferrite Isolator | K. J. Button | Trans. IRE, PGMTT <u>MTT-6</u> , 303 (1958) |
| 891 | An Interpretation of the Magnetic Properties of the Perovskite-Type Mixed Crystals $\text{La}_{1-x}\text{Sr}_x\text{CoO}_{3-\lambda}$ | J. B. Goodenough | J. Phys. Chem. Solids <u>6</u> , 287 (1958) |

Journal Articles

JA No.

- | | | | |
|----------|---|---|--|
| 892 | The Free-Energy Changes Attending the Martensitic Transformation in the Iron-Chromium and Iron-Chromium-Nickel Systems | L. Kaufman | Trans. AIME, Met. Soc. <u>215</u> , 218 (1959) |
| 893
R | Thermal Restoration of Oxygenated Germanium Surfaces | A. J. Rosenberg
P. H. Robinson
H. C. Gatos | J. Appl. Phys. <u>29</u> , 771 (1958) |
| 894
R | Influence of Crystal Orientation on the Surface Behavior of InSb | M. C. Lavine
A. J. Rosenberg
H. C. Gatos | J. Appl. Phys. <u>29</u> , 1131 (1958) |
| 896 | Noise Temperature Measurement on a Solid State Maser | A. L. McWhorter
J. W. Meyer
P. D. Strum | Phys. Rev. <u>108</u> , 1642 (1957) |
| 897 | Discussion of the Paper: "Detection of Pulse Signals in Noise: Trace-to-Trace Correlation in Visual Displays," D. G. Tucker, J. Brit. I. R. E. <u>17</u> , 319 (1957) | M. I. Skolnik | J. Brit. IRE <u>17</u> , 705 (1957) |
| 900
R | SAGE Data System Considerations | R. G. Enticknap
E. F. Schuster § | Trans. IEE, Commun. Electron. No. 34, 824 (1959) |
| 902 | Thermal Transpiration of Gases at Low Pressures | A. J. Rosenberg
C. S. Martel, Jr. | J. Phys. Chem. <u>62</u> , 457 (1958) |
| 903 | Radio Observations of the Russian Earth Satellite | R. R. Brown
P. E. Green, Jr.
B. Howland
R. M. Lerner
R. Manasse
G. H. Pettengill | Proc. IRE (Correspondence) <u>45</u> , 1552 (1957) |
| 906
R | Ferromagnetic Resonance at UHF in Thin Films | R. H. Kingston
P. E. Tannenwald | J. Appl. Phys. <u>29</u> , 232 (1958) |
| 909 | A Binary Algebra Describing Crystal Structures with Closely-Packed Anions | A. L. Loeb | Acta Cryst. <u>11</u> , 469 (1958) |
| 911 | Ultrasonic-Delay-Line Terminating Circuits and Bandpass Measurements | M. Axelbank | Proc. IRE <u>46</u> , 649 (1958) |
| 920
R | Spring Loaded Differential Drive | G. R. Heidler | Machine Design <u>30</u> , 140 (1958) |
| 921
R | Transient Response of Drift Transistors | R. C. Johnston | Proc. IRE <u>46</u> , 830 (1958) |
| 927 | X-Ray Analysis of Deformed Germanium, Gallium Antimonide, and Indium Antimonide | C. R. Kolm
E. P. Warekois
S. A. Kulin | Trans. AIME, Met. Soc. <u>212</u> , 827 (1958) |

Journal Articles

JA No.

- | | | | |
|----------|---|---|---|
| 938
R | Electrolytic Cell for Precision Electrode Kinetic Studies | S. Sheff
H. C. Gatos
S. Zwerdling | Rev. Sci. Instr. <u>29</u> , 531 (1958) |
| 939 | Linear Recurring Sequences | N. Zierler | J. Soc. Ind. Appl. Math. <u>7</u> , 31 (1959) |
| 941 | A UHF Solid State Maser | R. H. Kingston | Proc. IRE (Correspondence) <u>46</u> , 916 (1958) |
| 943
R | A Useful Theorem for Non-linear Devices Having Gaussian Inputs | R. Price | Trans. IRE, PGIT <u>1T-4</u> , 69 (1958) |
| 946
R | The Spectrophotometric Determination of Microgram Quantities of Indium | J. E. Johnson
M. C. Lavine
A. J. Rosenberg | Anal. Chem. <u>30</u> , 2055 (1958) |
| 949
R | Cataracts and Ultra-High Frequency Radiation | S. J. Fricker
D. G. Cogan §
D. D. Donaldson §
M. Lubin §
H. Hardy § | AMA Arch. Ind. Med. <u>18</u> , 299 (1958) |
| 951
R | Theory of Nonreciprocal Ferrite Phase Shifters in Dielectric Loaded Coaxial Line | K. J. Button | J. Appl. Phys. <u>29</u> , 998 (1958) |
| 959 | System-Noise Measurement of a Solid-State Maser | A. L. McWhorter
F. R. Arams § | Proc. IRE (Correspondence) <u>46</u> , 913 (1958) |
| 960
R | Direct Transition Exciton and Fine Structure of the Magneto-Absorption Spectrum in Germanium | S. Zwerdling
L. M. Roth
B. Lax | Phys. Rev. <u>109</u> , 2207 (1958) |
| 964 | Detection of Statistically Defined Patterns in a Matrix of Dots | B. F. Green, Jr.
A. K. Wolf
B. W. White | Am. J. Psychol. <u>72</u> , 503 (1959) |
| 968
R | Configuration Interaction in the Hydrogen Fluoride Molecule | A. M. Karo
L. C. Allen § | J. Am. Chem. Soc. <u>80</u> , 4496 (1958) |
| 976
R | Likelihood Ratios of Gaussian Processes | T. S. Pitcher | Arkiv Mat. <u>4</u> , 35 (1959) |
| 977
R | 21-Centimeter Solid State Maser | S. H. Autler
N. McAvoy § | Phys. Rev. <u>110</u> , 280 (1958) |
| 978
R | Measurements of the Bandwidth of Radio Waves Propagated by the Troposphere Beyond the Horizon | J. H. Chisholm
L. P. Rainville
J. F. Roche
H. G. Root | Trans. IRE, PGAP <u>AP-6</u> , 377 (1958) |
| 979
R | A Synthesis Procedure for Transmission Line Networks | A. I. Grayzel | Trans. IRE, PGCT <u>CT-5</u> , 172 (1958) |
| 983
R | Locally Compact Division Rings | E. Weiss
N. Zierler | Pacific J. Math. <u>8</u> , 369 (1958) |

Journal Articles

JA No.

992 R	Outdiffusion as a Technique for the Production of Diodes and Transistors	J. Halpern R. H. Rediker	Proc. IRE <u>46</u> , 1068 (1958)
996 R	Narrow Base Germanium Photodiodes	D. E. Sawyer R. H. Rediker	Proc. IRE <u>46</u> , 1122 (1958)
998	The Chemical Behavior of Semiconductor Surfaces Germanium and $Al^{III}B^V$ Intermetallic Compounds	H. C. Gatos	Chem. Chron. Greek Chem. Soc. <u>23A</u> , 78 (1958)
999 R	Stable, Low-Cost One-Mc Oscillator	J. F. Mercurio, Jr.	Electronics <u>32</u> , No. 6, 50 (1959)
1000	On Extrapolating a Positive Definite Function from a Finite Interval	E. J. Akutowicz	Math. Scand. <u>7</u> , 157 (1959)
1001 R	Digital Rate Synthesis for Frequency Measurement and Control	T. J. Rey	Proc. IRE <u>47</u> , 2106 (1959)
1002 R	The Solid State Maser – A Supercooled Amplifier	J. W. Meyer	Electronics <u>31</u> , No. 17, 66 (1958)
1003	Complex Analyses of Variance: General Problems	B. F. Green, Jr. J. W. Tukey §	Psychometrika <u>25</u> , 127 (1960)
1006 R	Optical Properties of Semiconductors under Hydrostatic Pressure. III. Germanium-Silicon Alloys	D. M. Warschauer W. Paul	J. Phys. Chem. Solids <u>6</u> , 6 (1958)
1007 R	Kinetics of the Cathodic Reduction of Anions: Germanium Oxides	P. H. Robinson M. Green	J. Electrochem. Soc. <u>106</u> , 253 (1959)
1008 R	Broad-Band Amplifier for Radar and Scatter	J. H. Phillips E. Maxwell	Electronics <u>31</u> , No. 39, 81 (1958)
1009 R	Recognition of Distorted Melodies	B. W. White	Am. J. Psychol. <u>73</u> , 100 (1960)
1019 R	Electrode Potential of Germanium in Aqueous Solutions and the Effect of Illumination	W. W. Harvey H. C. Gatos	J. Appl. Phys. <u>29</u> , 1267 (1958)
1021 R	Propagation of Ordinary Sound in Liquid Helium Near the λ Point	C. E. Chase	Phys. Fluids <u>1</u> , 193 (1958)
1022	Microwave Resonance in Thin Ferromagnetic Films	P. E. Tannenwald M. H. Seavey, Jr.	J. Phys. Radium <u>20</u> , 323 (1959)
1025 R	High Pressure Techniques	D. M. Warschauer W. Paul	Rev. Sci. Instr. <u>29</u> , 675 (1958)
1027 R	Linear Diversity Combining Techniques	D. G. Brennan	Proc. IRE <u>47</u> , 1075 (1959)

Journal Articles

JA No.

- | | | | |
|-----------|--|---|--|
| 1032 | A Figure of Merit for Catheter Sampling Systems | H. Sherman
W. L. Kraus
C. B. Moore
R. C. Schlant | Circulation Res. <u>7</u> , 303 (1959) |
| 1044
R | Crystallographic and Magnetic Properties of Several Spinels Containing Trivalent Manganese | D. G. Wickham
W. J. Croft | J. Phys. Chem. Solids <u>7</u> , 351 (1958) |
| 1050
R | Proposal for a Maser-Amplifier System Without Nonreciprocal Elements | S. H. Autler | Proc. IRE (Correspondence) <u>46</u> , 1880 (1958) |
| 1051
R | Statistical Theory of Irreversible Processes: I. Integral Over Fluctuation Path Formulation | D. Falkoff § | Ann. Phys. (MIT) <u>4</u> , 325 (1958) |
| 1055
R | The Adsorption of Krypton on Germanium | A. J. Rosenberg | J. Phys. Chem. <u>62</u> , 1112 (1958) |
| 1057 | The Lincoln Keyboard – A Type-writer Keyboard Designed for Computer Input Flexibility | A. Vanderburgh, Jr. | Commun. ACM <u>1</u> , 3 (1958) |
| 1058
R | Empirical Test of an Additive Random Number Generator | B. F. Green, Jr.
J. E. K. Smith
L. Klem | J. Assoc. Comp. Mach. <u>6</u> , 527 (1959) |
| 1059
R | Observation of Microwave Cyclotron Resonance by Cross Modulation | H. J. Zeiger
C. J. Rauch
M. E. Behrndt | Phys. Rev. Letters <u>1</u> , 59 (1958) |
| 1064
R | Resistance Thermometer Bridge for Measurement of Temperatures in the Liquid Helium Range | C. Blake
C. E. Chase
E. Maxwell | Rev. Sci. Instr. <u>29</u> , 715 (1958) |
| 1072 | A Non-Real-Time Simulation of SAGE Tracking and BOMARC Guidance | D. W. Ladd, Jr.
E. W. Wolf | Trans. IRE, PGEC <u>EC-8</u> , 36 (1959) |
| 1074
R | A UHF Solid State Maser | R. H. Kingston | Trans. IRE, PGMTT <u>MTT-7</u> , 92 (1959) |
| 1076
R | Low-Temperature Transition of Magnetic Anisotropy in Nickel-Iron Ferrite | N. Menyuk
K. Dwight | Phys. Rev. <u>112</u> , 397 (1958) |
| 1077
R | Preparation and Properties of the Systems in $\text{LaFe}_x\text{Cr}_{1-x}\text{O}_3$ and $\text{LaFe}_x\text{Co}_{1-x}\text{O}_3$ | A. Wold
W. Croft | J. Phys. Chem. <u>63</u> , 447 (1959) |
| 1078 | "Magnetogenies," or The Art of Generating High Magnetic Fields | H. H. Kolm
S. Foner | Kelvin Seale Supplement, Arthur D. Little, Inc. (1959) |

Journal Articles

JA No.

- | | | | |
|-----------|--|--|--|
| 1085 | Exciton and Magneto-Absorption of the Direct and Indirect Transitions in Germanium | S. Zwerdling
B. Lax
L. M. Roth
K. J. Button | Phys. Rev. <u>114</u> , 80 (1959) |
| 1086 | Theory of Optical Magneto-Absorption Effects in Semiconductors | L. M. Roth
B. Lax
S. Zwerdling | Phys. Rev. <u>114</u> , 90 (1959) |
| 1087 | MIT Lincoln Laboratory Milestones | J. T. Gilmore, Jr. | Commun. ACM <u>1</u> , 39 (1958) |
| 1089
R | The Morse Distribution | M. Freimer
B. Gold
A. L. Tritter | Trans. IRE, PGIT <u>IT-5</u> , 25 (1959) |
| 1093
R | Zero-Crossing Technique Using TV Techniques | J. A. Wereb, Jr. | Electronics <u>32</u> , No. 19, 64 (1959) |
| 1097
R | Quarter Wave Compensation of Resonant Discontinuities | C. E. Muehe, Jr. | Trans. IRE, PGMTT <u>MTT-7</u> , 2 (1959) |
| 1102 | Stress Analysis of a Large Radar Antenna by Digital Computer | S. Namyet §
J. M. Biggs § | Civil Engineering <u>29</u> , 54 (1959) |
| 1103
R | Quantum-Mechanical Three-Body Problem | L. Eyges | Phys. Rev. <u>115</u> , 1643 (1959) |
| 1105
R | Direct Observation of Spin-Wave Resonance | M. H. Seavey, Jr.
P. E. Tannenwald | Phys. Rev. Letters <u>1</u> , 168 (1958);
J. Appl. Phys. Suppl. <u>30</u> , 227S (1959) |
| 1106
R | Preparation and Crystallographic Properties of the Systems
$\text{LaMn}_{1-x}\text{Mn}_x\text{O}_{3+\lambda}$ and
$\text{LaMn}_{1-x}\text{Ni}_x\text{O}_{3+\lambda}$ | A. Wold
R. J. Arnott | J. Phys. Chem. Solids <u>9</u> , 176 (1959) |
| 1107
R | On the Reciprocity of HF Ionospheric Transmission | M. Balser
W. B. Smith
E. Warren | J. Geophys. Res. <u>63</u> , 859 (1958) |
| 1108
R | Comparison of Measured and Computed Values of the Rapid Fading-Rate of Ultra High-Frequency Signals Reflected from the Moon | S. J. Fricker
R. P. Ingalls
W. C. Mason
M. L. Stone | Nature <u>182</u> , 1438 (1958) |
| 1123
R | Machine Recognition of Hand Sent Morse Code | B. Gold | Trans. IRE, PGIT <u>IT-5</u> , 17 (1959) |
| 1132
R | On the Matrix Riccati Equation | J. J. Levin | Proc. Am. Math. Soc. <u>10</u> , 519 (1959) |
| 1133 | Rigid Radome Design Considerations | P. Davis
A. Cohen | Electronics <u>32</u> , No. 16, 66 (1959) |

JA No.

1134 R	Syringe-Type Single-Crystal Furnace for Materials Containing a Volatile Constituent	P. L. Moody C. R. Kolm	Rev. Sci. Instr. <u>29</u> , 1144 (1958)
1138 R	Resonance Isolator at 70 kMcps	L. C. Kravitz G. S. Heller	Proc. IRE (Correspondence) <u>47</u> , 331 (1959)
1143 R	Connections Plated With Wiring	E. A. Guditz	Electronics <u>32</u> , No. 51, 96 (1959)
1143A R	Lincoln Lab Builds Electronic Package Backwards	E. A. Guditz	Business Week (2 January 1960)
1144 R	Configuration Interaction in the Lithium Hydride Molecule. I. A Determinantal AO Approach	A. M. Karo A. R. Olson	J. Chem. Phys. <u>30</u> , 1232 (1959)
1145 R	Configuration Interaction in the Lithium Hydride Molecule. II. An SCF LCAO-MO Approach	A. M. Karo	J. Chem. Phys. <u>30</u> , 1241 (1959)
1146 R	Serial Position and the Memory-Span	N. C. Waugh	Am. J. Psychol. <u>73</u> , 68 (1960)
1149	Oscillatory Magneto-Absorption in Gallium Antimonide	S. Zwerdling B. Lax K. J. Button L. M. Roth	J. Phys. Chem. Solids <u>9</u> , 320 (1959)
1155	X-Ray Method for the Differentiation of {111} Surfaces in Al _{III} B _V Semiconducting Compounds	E. P. Warekois P. H. Metzger	J. Appl. Phys. <u>30</u> , 960 (1959)
1173 R	An Electron Population Analysis of LiH and HF	A. M. Karo	J. Chem. Phys. <u>3</u> , 182 (1959)
1183 R	Ground Radomes	S. C. Nilo	SPE J. <u>15</u> , 157 (1959)
1184	Characteristics of the Human Operator in Simple Manual Control Systems	J. I. Elkind C. D. Forgeie	Trans. IRE, PGAC <u>AC-4</u> , 44 (1959)
1186 R	Half-Cycle Resonant Delay Circuit	B. Howland	Proc. IRE (Correspondence) <u>47</u> , 993 (1959)
1189	Electroplated Electrical Connections and Improved Through-Hole Printed Wiring	E. B. Murphy	Plating <u>46</u> , 848 (1959)
1190 R	Air Defense Research in the Space Age	C. F. J. Overhage	Tech. Rev. <u>61</u> , 239 (1959)
1193 R	The Probability Density of the Output of a Filter When the Input Is a Random Telegraphic Signal: Differential-Equation Method	J. A. McFadden	Trans. IRE, PGCT <u>CT-6</u> , 228 (1959); Trans. IRE, PGIT <u>IT-5</u> , 228 (1959)

Journal Articles

JA No.

- | | | | |
|-----------|--|---|--|
| 1194
R | The Detection of Radar Echoes in Noise. Part I: Statistical Preliminaries and Detector Design; Part II: The Accuracy of Radar Measurements | E. J. Kelly, Jr.
I. S. Reed
W. L. Root | J. Soc. Ind. Appl. Math. <u>8</u> , 309 (I), 481 (II) (1960) |
| 1197
R | Millimicrosecond-Switching Diodes | J. Halpern
R. H. Rediker | Electronics <u>32</u> , No. 23, 66 (1959) |
| 1198
R | Maximum Angular Accuracy of Tracking a Radio Star by Lobe Comparison | R. Manasse | Trans. IRE, PGAP <u>AP-8</u> , 50 (1960) |
| 1200 | Versatile and Sensitive Vibrating-Sample Magnetometer | S. Foner | Rev. Sci. Instr. <u>30</u> , 548 (1959) |
| 1201 | The Representation of Signals | R. M. Lerner | Trans. IRE, PGCT <u>CT-6</u> , 197 (1959); Trans. IRE, PGIT <u>IT-5</u> , 197 (1959) |
| 1209
R | Transistorized Generator for Pulse Circuit Design | L. Neumann | Electronics <u>32</u> , No. 14, 47 (1959) |
| 1210 | The Magnetic Properties of Thin Films | J. B. Goodenough
D. O. Smith | Am. Soc. Metals Seminar Volume, Chap. 7 (1959) |
| 1211
R | Polynomial Codes Over Certain Finite Fields | I. S. Reed
G. Solomon | J. Soc. Ind. Appl. Math. <u>8</u> , 300 (1960) |
| 1216 | Fine Structure in the Zeeman Effect of Excitons in Germanium | K. J. Button
L. M. Roth
W. H. Kleiner
S. Zwerdling
B. Lax | Phys. Rev. Letters <u>2</u> , 161 (1959) |
| 1218 | The Cryosar - A New Low-Temperature Computer Component | A. L. McWhorter
R. H. Rediker | Proc. IRE <u>47</u> , 1207 (1959) |
| 1226 | The Pursuit of a Language for Expressing the Outward Behavior of Information Processing Systems | P. R. Bagley | Commun. ACM <u>2</u> , 1 (1959) |
| 1229
R | The Velocity of Sound in Liquid Helium Near the λ -Point | C. E. Chase | Phys. Rev. Letters <u>2</u> , 197 (1959) |
| 1240
R | Note on a Singular Function of Minkowski | J. R. Kinney | Proc. Am. Math. Soc. <u>11</u> , 788 (1960) |
| 1241 | Measurement of Switching Transistor Parameters | R. C. Johnston
R. L. Burke | Semiconductor Prod. <u>3</u> , No. 2, 43 (1960) |
| 1242
R | Automatic Phase Control: Theory and Design | T. J. Rey | Proc. IRE <u>48</u> , 1760 (1960) |

Journal Articles

JA No.

- | | | | |
|------------|--|--|--|
| 1243
R | Radar Echoes from Venus | R. Price
T. J. Goblick
P. E. Green, Jr.
R. H. Kingston
L. G. Kraft
G. H. Pettengill
R. Silver
W. B. Smith | Science <u>129</u> , 751 (1959) |
| 1247 | On the Use of Laguerre Polynomials in Treating the Envelope and Phase Components of Narrow-Band Gaussian Noise | I. S. Reed | Trans. IRE, PGIT <u>IT-5</u> , 102 (1959) |
| 1249
R | LCAO Wave Functions for Hydrogen Fluoride with Hartree-Fock Atomic Orbitals | A. M. Karo
L. C. Allen § | J. Chem. Phys. <u>31</u> , 968 (1959) |
| 1253
R | Means for Counting "Effective" Numbers of Objects or Durations of Signals | R. M. Lerner | Proc. IRE (Correspondence) <u>47</u> , 1653 (1959) |
| 1254
R | Boundary Behavior of Blaschke Products in the Unit Circle | J. R. Kinney | Proc. Am. Math. Soc. <u>12</u> , 484 (1961) |
| 1263
R | Application of Statistical Notions to Multipath Channels | P. E. Green, Jr. | Nuovo Cimento <u>13</u> , 406 (1959) |
| 1264
R | Results Obtained from a Vowel Recognition Computer Program | J. W. Forgie
C. D. Forgie | J. Acoust. Soc. Am. <u>31</u> , 1480 (1959) |
| 1265
R | Surface-Dependent Losses in Variable Reactance Diodes | D. E. Sawyer | J. Appl. Phys. <u>30</u> , 1689 (1959) |
| 1266
R | The Spectrochemical Analysis of High Purity Gallium | E. B. Owens | Appl. Spectroscopy <u>13</u> , 105 (1959) |
| 1267
R | The Size Effect of Ferrite Spheres | W. Hauser
L. T. Brown | Quart. J. Mech. Appl. Math. <u>13</u> , 257 (1960) |
| 1269A
R | Galvanomagnetic Effects in n-Type Silicon | W. E. Krag | Phys. Rev. <u>118</u> , 435 (1960) |
| 1276 | State of the Millimeter Wave Art | B. Lax
G. S. Heller | Microwave J. <u>2</u> , No. 5, 12 (1959) |
| 1281
R | Deformation Potential in Germanium from Optical Absorption Lines for Exciton Formation | W. H. Kleiner
L. M. Roth | Phys. Rev. Letters <u>2</u> , 334 (1959) |
| 1284 | Non-Computational Uses of Digital Computers | B. F. Green, Jr. | Behavioral Sci. <u>4</u> , 164 (1959) |
| 1288
R | Thin Magnetic Films for Digital Computer Memories | D. O. Smith | Electronics <u>32</u> , No. 26, 44 (1959) |

Journal Articles

JA No.

1290 R	Suggestion Concerning Magnetic Interactions in Spinels	D. G. Wickham J. B. Goodenough	Phys. Rev. <u>115</u> , 1156 (1959)
1293 R	The Remarkable "Maser" Story	B. Lax H. C. Gatos	Tech. Rev. <u>61</u> , 36 (1959)
1298 R	Spin Waves	P. E. Tannenwald	Microwave J. <u>2</u> , No. 7, 25 (1959)
1302 R	Theory of Electrical Conduction in High Magnetic Fields	P. N. Argyres L. M. Roth	J. Phys. Chem. Solids <u>12</u> , 89 (1959)
1307A	Quantizing for Minimum Distortion	J. Max	Trans. IRE, PGIT <u>1T-6</u> , 7 (1960)
1313A R	Effects of Solar Radiation Pressure on Earth Satellite Orbits	R. W. Parkinson § H. M. Jones I. I. Shapiro	Science <u>131</u> , 920 (1960)
1318	The Effect of a Heat Current or Rotation on Sound Propagation in Liquid Helium	C. E. Chase J. Fineman W. E. Millett §	Physica <u>25</u> , 631 (1959)
1321	The Solid State Maser	R. H. Kingston	Engineers' News Supplement, N. Y. Herald Tribune, 24 May 1959
1336 R	Proposal for a Feasible Programming System	P. R. Bagley	Commun. ACM <u>2</u> , 7 (1959)
1338	Optical Absorption of CoO and MnO Above and Below the Néel Temperature	G. W. Pratt, Jr. R. Coelho §	Phys. Rev. <u>116</u> , 281 (1959)
1340 R	Perturbation of Wave Guides and Cavities by Spheres and Cylinders	W. Hauser L. T. Brown	J. Appl. Phys. <u>30</u> , 1460 (1959)
1348	Multilevel Pulsed Field Maser for Generation of High Frequencies	S. Foner L. R. Momo A. Mayer	Phys. Rev. Letters <u>3</u> , 36 (1959)
1354 R	High Magnetic Fields for Advanced Research	H. H. Kolm	Electronics <u>32</u> , No. 40, 43 (1959)
1356A R	Performance of a 640-Mile, 24-Channel UHF-SSB Experimental Communication System	B. E. Nichols	Trans. IRE, PGCS <u>CS-8</u> , 26 (1960)
1357	Quantum Theory of Transport in a Magnetic Field	P. N. Argyres	Phys. Rev. <u>117</u> , 315 (1960)
1359	Cd ₃ As ₂ - A Non-Cubic Semiconductor with Unusually High Electron Mobility	A. J. Rosenberg T. C. Harman	J. Appl. Phys. <u>30</u> , 1621 (1959)

JA No.

- | | | | |
|-----------|---|---|--|
| 1367
R | The Reaction of Germanium with Aqueous Solutions.
II. Dissolution Kinetics in Electrolytes and the Role of Specific Adsorption | W. W. Harvey
H. C. Gatos | J. Electrochem. Soc. <u>107</u> , 65 (1960) |
| 1369 | Effects of UHF Radiation on Animals | M. Lubin §
L. E. Bird
G. W. Curtis §
P. F. Daley
D. G. Cogan §
H. R. Dudley §
S. J. Fricker | AMA Arch. Ind. Health <u>21</u> , 558 (1960) |
| 1371
R | Gallium-Arsenide Diffused Diodes | J. Lowen
R. H. Rediker | J. Electrochem. Soc. <u>107</u> , 26 (1960) |
| 1372
R | A Review of Panel-Type Display Devices | J. J. Josephs | Proc. IRE <u>48</u> , 1380 (1960) |
| 1373
R | Classical Spin-Configuration Stability in the Presence of Competing Exchange Forces | T. A. Kaplan | Phys. Rev. Letters <u>116</u> , 888 (1959) |
| 1374
R | Remembering the Present States of a Number of Variables | D. B. Yntema
G. E. Mueser | J. Exptl. Psychol. <u>60</u> , 18 (1960) |
| 1376
R | Simple Null-Indicating Saturable-Core Magnetometer for the Detection of Static Magnetic Fields | E. P. McCurley
C. Blake | Rev. Sci. Instr. <u>31</u> , 440 (1960) |
| 1377
R | The Growth of Anodic Oxide Films on Germanium | S. Zwerdling
S. Sheff | J. Electrochem. Soc. <u>107</u> , 338 (1960) |
| 1378 | IPL-V: The Newell-Shaw-Simon Programming Language | B. F. Green, Jr. | Behavioral Sci. <u>5</u> , 94 (1960) |
| 1379
R | Electroforming of Intricate Electronic Components | E. B. Murphy | Electronics <u>32</u> , No. 37, 114 (1959) |
| 1381 | On a System of Integrodifferential Equations Occurring in Reactor Dynamics | J. J. Levin
J. A. Nohel § | J. Math. and Mech. <u>9</u> , 347 (1960) |
| 1382
R | Transistor-Capacitor Shift Register | R. W. Hofheimer | Semiconductor Prod. <u>3</u> , No. 7, 31 (1960) |
| 1383
R | Mutual Coupling Effects in Large Antenna Arrays.
I. Slot Arrays | S. Edelberg
A. A. Oliner § | Trans. IRE, PGAP <u>AP-8</u> , 286 (1960) |
| 1388
R | Computation and Measurement of the Fading Rate of Moon-Reflected UHF Signals | S. J. Fricker
R. P. Ingalls
W. C. Mason
M. L. Stone
D. W. Swift | J. Research Natl. Bur. Standards <u>64D</u> , 455 (1960) |

Journal Articles

JA No.

1393 R	Circulators at 70 and 140 kMcps	J. B. Thaxter G. S. Heller	Proc. IRE <u>48</u> , 110 (1960)
1396A	Characteristics of the {111} Surfaces of the III-V Inter-metallic Compounds	H. C. Gatos M. C. Lavine	J. Electrochem. Soc. <u>107</u> , 427 (1960)
1397 R	Delay-Line Specifications for Matched-Filter Communications Systems	R. M. Lerner B. Reiffen H. Sherman	Trans. IRE, PGCP <u>CP-6</u> , 263 (1959)
1398	The MIT Whirlwind I Computer	J. A. Kessler R. Eldridge	Naval Research Reviews (October 1959)
1399 R	Accuracy in Reconstructing the Arrangement of Elements Generating Kinetic Depth Displays	B. W. White G. E. Mueser	J. Exptl. Psychol. <u>60</u> , 1 (1960)
1400 R	In Defense of the Bat	J. Freedman	Contemp. Psychol. <u>4</u> , 372 (1959)
1409	Material for Microwaves	B. Lax	Microwave J. <u>2</u> , 9 (1959)
1410 R	g Factor of Electrons in Germanium	L. M. Roth B. Lax	Phys. Rev. Letters <u>3</u> , 217 (1959)
1415 R	Note on the Distribution of Locally Maximal Elements in a Random Sample	M. Freimer B. Gold	Ann. Math. Stat. <u>31</u> , 518 (1960)
1420 R	Mutual Coupling Effects in Large Antenna Arrays. II. Compensation Effects	S. Edelberg A. A. Oliner	Trans. IRE, PGAP <u>AP-8</u> , 360 (1960)
1426A R	Classical Theory of Spin Configurations in the Cubic Spinel	T. A. Kaplan	Phys. Rev. <u>119</u> , 1460 (1960)
1428	Growth of InSb Crystals in the Polar Direction	H. C. Gatos P. L. Moody M. C. Lavine	J. Appl. Phys. <u>31</u> , 212 (1960)
1431	Magneto-Optical Phenomena in Semiconductors	B. Lax S. Zwerdling	Prog. in Semiconductors <u>5</u> , 223 (1960)
1440	Pulsed Field Millimeter Wave Maser	L. R. Momo R. A. Myers S. Foner	J. Appl. Phys. <u>31</u> , 443 (1960)
1443 R	Light-Pen Links Computer to Operator	B. M. Gurley C. E. Woodward	Electronics <u>32</u> , No. 47, 85 (1959)
1447 R	Direct Cation-Cation Interactions in Several Oxides	J. B. Goodenough	Phys. Rev. <u>117</u> , 1442 (1960)

JA No.

- | | | | |
|-----------|--|--|--|
| 1448
R | Observed Characteristics of an Ultra-High-Frequency Signal Traversing an Auroral Disturbance | J. C. James
L. E. Bird
R. P. Ingalls
M. L. Stone
J. W. B. Day
G. E. K. Lockwood §
R. L. Presnell § | Nature <u>185</u> , 510 (1960) |
| 1454
R | The Preparation and Crystallography of FeNiN and the Series $\text{Fe}_{4-x}\text{Ni}_x\text{N}$ | R. J. Arnett
A. Wold | J. Phys. Chem. Solids <u>15</u> , 152 (1960) |
| 1455 | Dislocation Etch Pits on the $\{111\}$ and $\{\bar{1}\bar{1}\bar{1}\}$ Surfaces of InSb | H. C. Gatos
M. C. Lavine | J. Appl. Phys. <u>31</u> , 743 (1960) |
| 1456
R | Studies in Partial Switching of Ferrite Cores | R. H. Tancrrell
R. E. McMahon | J. Appl. Phys. <u>31</u> , 762 (1960) |
| 1457
R | Kinetics of the Oxidation of Antimony | A. J. Rosenberg
A. A. Menna
T. P. Turnbull | J. Electrochem. Soc. <u>107</u> , 196 (1960) |
| 1461 | Cell for the Infrared Spectroscopy of Solid and Gas-Solid Phase Reactions | F. Vratny §
B. Graves § | Rev. Sci. Instr. <u>31</u> , 65 (1960) |
| 1462
R | The Preparation of Stoichiometric Ferrites | D. G. Wickham
E. R. Whipple
E. G. Larson | J. Inorg. Nucl. Chem. <u>14</u> , 217 (1960) |
| 1466 | Etching Behavior of the $\{110\}$ and $\{100\}$ Surfaces of InSb | H. C. Gatos
M. C. Lavine | J. Electrochem. Soc. <u>107</u> , 433 (1960) |
| 1467 | Review of "Paris Symposium on Radio Astronomy" | R. H. Kingston | Microwave J. <u>3</u> , No. 2, 76 (1960) |
| 1475
R | Effect of the Lattice on Dielectric Properties of an Electron Gas | D. S. Falk | Phys. Rev. <u>118</u> , 105 (1960) |
| 1477 | Superconducting Electromagnets | S. H. Autler | Rev. Sci. Instr. <u>31</u> , 369 (1960) |
| 1484 | An IF Power Comparator With Large Dynamic Range | G. R. Curry | Proc. IRE (Correspondence) <u>48</u> , 1490 (1960) |
| 1485 | Paraboloidal Reflector Patterns for Off-Axis Feed | S. S. Sandler | Trans. IRE, PGAP <u>AP-8</u> , 368 (1960) |
| 1489
R | On Decoding Linear Error-Correcting Codes. I. | N. Zierler | Trans. IRE, PGIT <u>IT-6</u> , 450 (1960) |
| 1490
R | Magnetoplasma Reflection in Solids | B. Lax
G. B. Wright | Phys. Rev. Letters <u>4</u> , 16 (1960) |

Journal Articles

JA No.

- | | | | |
|------------|--|---|--|
| 1493 | Digital Computer Techniques in the Study of the Nervous System | W. A. Clark | The Reflector <u>8</u> , 25 (1959) |
| 1494 | Indium as a Source of Impurities in Indium Arsenide | A. J. Strauss
T. C. Harman
E. B. Owens
M. C. Finn | Solid-State Electron. <u>1</u> , 131 (1960) |
| 1495
R | Historical Sketch of Ferrites and Their Microwave Applications | K. J. Button | Microwave J. <u>3</u> , No. 3, 73 (1960) |
| 1497
R | Generalization of Band Theory to Include Self-Energy Corrections | G. W. Pratt, Jr. | Phys. Rev. <u>118</u> , 462 (1960) |
| 1501
R | Global Asymptotic Stability for Nonlinear Systems of Differential Equations and Applications to Reactor Dynamics | J. J. Levin
J. A. Nohel § | Arch. Rat. Mech. Anal. <u>5</u> , 194 (1960) |
| 1502A
R | Preparation and Properties of CdSnAs_2 | A. J. Strauss
A. J. Rosenberg | J. Phys. Chem. Solids <u>17</u> , 278 (1961) |
| 1504 | Cyclotron Resonance | B. Lax
J. G. Mavroides | Solid-State Phys. <u>11</u> , 261 (1960) |
| 1506A | Concerning Hybrids | C. W. Jones | Microwave J. <u>4</u> , No. 10, 98 (1961) |
| 1510 | Etching and Inhibition of the {111} Surfaces of the III-V Intermetallic Compounds: InSb | H. C. Gatos
M. C. Lavine | J. Phys. Chem. Solids <u>14</u> , 169 (1960) |
| 1511
R | Length of Series and the Learning Curve | N. C. Waugh | Am. J. Psychol. <u>75</u> , 177 (1962) |
| 1514
R | Background to Scientific Communication | M. M. Kessler | Trans. IRE, PGEWS <u>EWS-3</u> , 3 (1960) |
| 1515 | Millimeter Cyclotron Resonance in Silicon | C. J. Rauch
J. J. Stickler
H. J. Zeiger
G. S. Heller | Phys. Rev. Letters <u>4</u> , 64 (1960) |
| 1516
R | Zeeman Effect of Impurity Levels in Silicon | S. Zwerdling
K. J. Button
B. Lax | Phys. Rev. <u>118</u> , 975 (1960) |
| 1517
R | The Effect of a Density Maximum Near the λ Point on the Temperature Distribution in Liquid Helium I | C. E. Chase
E. Maxwell
W. M. Whitney § | Physica <u>26</u> , 160 (1960) |
| 1520 | Physical Adsorption Processes and Their Relation to Order-Disorder Theory | J. M. Honig | Trans. N. Y. Acad. Sci. <u>22</u> , 313 (1960) |

JA No.

- | | | | |
|------------|--|---|--|
| 1521 | Internal Impurity Levels in Semiconductors: Experiments in p -Type Silicon | S. Zwerdling
K. J. Button
B. Lax | Phys. Rev. Letters <u>4</u> , 173 (1960) |
| 1522
R | Magnetization Reversal and Asymmetry in Cobalt Vanadate (IV) | N. Menyuk
K. Dwight
D. G. Wickham | Phys. Rev. Letters <u>4</u> , 119 (1960) |
| 1524
R | CW Millimeter Wave Maser Using Fe^{3+} in TiO_2 | S. Foner
L. R. Momo | J. Appl. Phys. <u>31</u> , 742 (1960) |
| 1525
R | Radiochemical Evaluation of Solvent Extraction of Indium as the Bromide at High Concentrations | E. B. Owens | Anal. Chem. <u>32</u> , 1366 (1960) |
| 1528
R | A Note on Human Recognition of Hand-Printed Characters | U. Neisser
P. Weene | Inform. and Control <u>3</u> , 191 (1960) |
| 1534
R | The Oxidation of Intermetallic Compounds. I. High Temperature Oxidation of InSb | A. J. Rosenberg
M. C. Lavine | J. Phys. Chem. <u>64</u> , 1135 (1960) |
| 1535
R | Oxidation of Intermetallic Compounds. II. Interrupted Oxidation of InSb | A. J. Rosenberg | J. Phys. Chem. <u>64</u> , 1143 (1960) |
| 1536 | Metallurgy and Semiconductor Materials | H. C. Gatos,
Editor | <u>Properties of Elemental and Compound Semiconductors</u> , AIME Publications (Interscience Publishers, New York, 1960) |
| 1537
R | Experimental Comparison of Equal-Gain Maximal-Ratio Diversity Combiners | R. V. Locke, Jr. | Proc. IRE (Correspondence) <u>48</u> , 1488 (1960) |
| 1538 | Conference on Quantum Electronics | B. Lax | Microwave J. <u>3</u> , No. 2, 21 (1960) |
| 1542
R | Determination of the Effective Scattering Mechanism Parameter of Electron Transport Theory | T. C. Harman | Phys. Rev. <u>118</u> , 1541 (1960) |
| 1545
R | Charging Curves for Germanium Electrodes | W. W. Harvey
S. Sheff
H. C. Gatos | J. Electrochem. Soc. <u>107</u> , 560 (1960) |
| 1546A
R | Derivation of the Boltzmann Transport Equation for Inelastic Collisions | P. N. Argyres | J. Phys. Chem. Solids <u>19</u> , 66 (1961) |
| 1547
R | g Factor and Donor Spin-Lattice Relaxation for Electrons in Germanium and Silicon | L. M. Roth | Phys. Rev. <u>118</u> , 1534 (1960) |

Journal Articles

JA No.

- | | | | |
|------------|---|---------------------------------|---|
| 1549 | Magneto-Plasma Reflection in n-Type InSb and n-Type HgSe | G. B. Wright
B. Lax | Phys. Rev. Letters <u>4</u> , 16 (1960) |
| 1555
R | First Passage Times of a Generalized Random Walk | J. R. Kinney | Ann. Math. Stat. <u>32</u> , 235 (1961) |
| 1556 | New Tools for Research | B. Lax | Microwave J. <u>3</u> , No. 6, 19 (1960) |
| 1558
R | Evidence for the Quantization of Circulation in Liquid Helium II | C. E. Chase | Phys. Rev. Letters <u>4</u> , 220 (1960) |
| 1560
R | Physical Adsorption Processes and Their Relation to Order-Disorder Theory | J. M. Honig | Trans. N. Y. Acad. Sci. <u>22</u> , 313 (1960) |
| 1561
R | A Matched Filter Detection System for Complicated Doppler Signals | R. M. Lerner | Trans. IRE, PGIT <u>IT-6</u> , 373 (1960) |
| 1563
R | Measurements of Lunar Reflectivity Using the Millstone Radar | G. H. Pettengill | Proc. IRE (Correspondence) <u>48</u> , 933 (1960) |
| 1565A
R | Semiconductor Compounds | H. C. Gatos | Nucleus <u>37</u> , 165 (1960) |
| 1567
R | Separation of the Defect Concentration and Diffusion Coefficient in Diffusion-Limited Scaling Reactions | A. J. Rosenberg | J. Electrochem. Soc. <u>107</u> , 795 (1960) |
| 1570
R | Magnetic Properties of Mn_3O_4 and the Canted Spin Problem ⁴ | K. Dwight
N. Menyuk | Phys. Rev. <u>119</u> , 1470 (1960) |
| 1573 | Magnetic Properties of Perovskites | J. B. Goodenough | <u>Landolt-Bornstein Tabellen</u> , Vol. II/9 (Springer-Verlag, Berlin, 1962) |
| 1577 | Electromagnet Design | H. H. Kolm
D. B. Montgomery | <u>Encyclopedic Dictionary of Physics</u> (Pergamon Press, London, 1961) |
| 1578A
R | On the Global Asymptotic Behavior of Nonlinear Systems of Differential Equations | J. J. Levin | Arch. Ra. Mech. Anal. <u>6</u> , 65 (1960) |
| 1579 | Measurements of the Spectrum of Radio Noise from 50–100 cps | M. Balser
C. A. Wagner | J. Research Natl. Bur. Standards <u>64D</u> , 415 (1960) |
| 1581A
R | Improved Square Wave Inductance Bridge | B. Howland | Rev. Sci. Instr. <u>31</u> , 763 (1960) |
| 1582
R | Optimum Approximation to a Matched Filter Response | J. W. Craig, Jr. | Trans. IRE, PGIT <u>IT-6</u> , 409 (1960) |
| 1587 | A Solid-State UHF Radar Transponder | L. Cartledge
G. B. Tiffany § | Astronautics <u>5</u> , 30 (1960) |

Journal Articles

JA No.

- | | | | |
|------------|--|---|---|
| 1589 | C-W Cell Decompositions of Symmetric Homogeneous Spaces | R. Hermann | Bull. Am. Math. Soc. <u>66</u> , 126 (1960) |
| 1590 | On Geodesics That Are Also Orbits | R. Hermann | Bull. Am. Math. Soc. <u>66</u> , 91 (1960) |
| 1590A
R | Geodesics of Bounded, Symmetric Domains | R. Hermann | Comment. Math. Helvetici <u>35</u> , 1 (1961) |
| 1591
R | On the Differential Geometry of Foliations | R. Hermann | Ann. Math. <u>72</u> , 445 (1960) |
| 1592
R | Remarks on the Foundations of Integral Geometry | R. Hermann | Rendic. Circolo Mat. (Palermo) <u>9</u> , 1 (1960) |
| 1593
R | Ionospheric Backscatter Observation at 440 Mcps | V. C. Pineo
L. G. Kraft
H. W. Briscoe | J. Geophys. Res. <u>65</u> , 1620 (1960) |
| 1594
R | Activity Coefficients of Electrons and Holes at High Concentrations | A. J. Rosenberg | J. Chem. Phys. <u>33</u> , 665 (1960) |
| 1597
R | Radar Echoes from Venus and a New Determination of the Solar Parallax | G. H. Pettengill
R. Price | Planet. Space Sci. <u>5</u> , 70 (1961) |
| 1599 | Inclusion Theory of Kerston | N. Menyuk | <u>Encyclopedic Dictionary of Physics</u> (Pergamon Press, London, 1961) |
| 1600 | Spontaneous Magnetization | K. Dwight | <u>Encyclopedic Dictionary of Physics</u> (Pergamon Press, London, 1961) |
| 1601 | The Reaction of Semiconductors With Aqueous Solutions | H. C. Gatos,
Editor | <u>The Surface Chemistry of Metals and Semiconductors</u> (Wiley, New York, 1960) |
| 1602
R | On the Theory of Indicator-Dilution Methods Under Varying Blood-Flow Conditions | H. Sherman | Bull. Math. Biophys. <u>22</u> , 417 (1960) |
| 1603A | An Infinite-Stage Production-Smoothing Process | M. Freimer | J. Math. Anal. Appl. <u>2</u> , 500 (1961) |
| 1605
R | {111} Direct Transition Exciton and Magnetoreflexion in Germanium | B. Lax | Phys. Rev. Letters <u>4</u> , 511 (1960) |
| 1607
R | Damaged Layers and Crystalline Perfection in the {111} Surfaces of III-V Intermetallic Compounds | E. P. Warekois
M. C. Lavine
H. C. Gatos | J. Appl. Phys. <u>31</u> , 1302 (1960) |

Journal Articles

JA No.

1610 R	On Singular and Nonsingular Optimum (Bayes) Tests for the Detection of Normal Stochastic Signals in Normal Noise	D. Middleton	Trans. IRE, PGIT <u>IT-7</u> , 405 (1961)
1612	Review of "Alpha-Numeric Character Recognition Using Local Operations," by J. S. Bomba	H. Sherman	Trans. IRE, PGEC <u>EC-9</u> , 382 (1960)
1613	Review of "Pattern Recognition and Reading by Machine," by W. W. Bledsoe and I. Browning	H. Sherman	Trans. IRE, PGEC <u>EC-9</u> , 381 (1960)
1614 R	Growth of GaAs Crystals in the <111> Polar Direction	P. L. Moody H. C. Gatos M. C. Lavine	J. Appl. Phys. <u>31</u> , 1696 (1960)
1615 R	A Representation of Vector-Valued Random Processes	E. J. Kelley, Jr. W. L. Root	J. Math. and Phys. <u>39</u> , 211 (1960)
1616A	First Aid for a Giant Bearing	D. A. Regillo	Am. Machinist <u>105</u> , 146 (1961)
1619 R	Pattern Recognition by Machine	O. G. Selfridge U. Neisser	Scientific American, 2 (August 1960)
1620 R	Oblique-Incidence Anisotropy in Evaporated Permalloy Films	D. O. Smith M. S. Cohen G. P. Weiss	J. Appl. Phys. <u>31</u> , 1755 (1960)
1622 R	Note on the Equalization and Cancellation Theory of Binaural Masking Level Differences	N. I. Durlach	J. Acoust. Soc. Am. <u>32</u> , 1075 (1960)
1625 R	Exploring the Solar System by Radar	P. E. Green, Jr. G. H. Pettengill	Sky and Telescope <u>20</u> , 3 (1960)
1626	Two-Error Correcting Bose-Chaudhuri Codes are Quasi-Perfect	N. Zierler D. Gorenstein § W. W. Peterson §	Inform. and Control <u>3</u> , 291 (1960)
1627 R	A Possible Long-Range Communications Link Between Ground and Low-Orbiting Satellites	M. S. Macrakis	J. Atmos. Terr. Phys. <u>19</u> , 260 (1960)
1628	Band Structure of Transition Metals and Their Alloys	J. B. Goodenough	Phys. Rev. <u>120</u> , 67 (1960)
1629 R	Magneto-Tunneling in InSb	A. R. Calawa R. H. Rediker B. Lax A. L. McWhorter	Phys. Rev. Letters <u>5</u> , 55 (1960)
1631 R	Method for Determining Ground-State Spin Configurations	D. H. Lyons T. A. Kaplan	Phys. Rev. <u>120</u> , 1580 (1960)

Journal Articles

JA No.

- | | | | |
|------------|---|---|---|
| 1634 | Rotating Polarization and Periodic Bodies | J. J. Mikulski | Proc. IRE <u>49</u> , 361 (1961) |
| 1636
R | Thermal Conduction in Rotating Liquid Helium II | C. E. Chase | Phys. Rev. <u>120</u> , 688 (1960) |
| 1637
R | A Stochastic Model for Free Recall | N. C. Waugh
J. E. K. Smith | Psychometrika <u>27</u> , 151 (1962) |
| 1638
R | Low Temperature Paramagnetic Resonance of Trapped O ₂ | S. Foner
H. Meyer §
W. H. Kleiner | J. Phys. Chem. Solids <u>18</u> , 273 (1961) |
| 1640
R | The Average Response Computer (ARC): A Digital Device for Computing Averages and Amplitude and Time Histograms of Electrophysiological Response | W. A. Clark, Jr.
R. M. Brown
M. H. Goldstein
C. E. Molnar
D. F. O'Brien
H. E. Zieman | Trans. IRE, PGBME <u>BME-8</u> , 46 (1961) |
| 1642
R | Low Reverse Leakage Gallium-Arsenide Diodes | J. Halpern
R. H. Rediker | Proc. IRE (Correspondence) <u>48</u> , 1780 (1960) |
| 1643
R | Electromagnetic Properties of Ferrimagnetics and Their Applications from UHF to Millimeter Waves. I, II, III | B. Lax
K. J. Button | Microwave J. <u>3</u> , No. 9, 2; No. 10, 52; No. 11, 49 (1960) |
| 1644
R | Figure Coherence in the Kinetic Depth Effect | B. F. Green, Jr. | J. Exptl. Psychol. <u>62</u> , 272 (1961) |
| 1645
R | Computer Design of Multiple-Output Logical Networks | T. C. Bartee | Trans. IRE, PGEC <u>EC-10</u> , 21 (1961) |
| 1646
R | General Spin-Wave Dispersion Relations | R. F. Soohoo | Phys. Rev. <u>120</u> , 1978 (1960) |
| 1647
R | Observations of Earth-Ionosphere Cavity Resonances | M. Balser
C. A. Wagner | Nature <u>188</u> , 638 (1960) |
| 1648
R | Pulsed Field Measurements of Large Zero-Field Splittings: V ³⁺ in Al ₂ O ₃ | S. Foner
W. Low § | Phys. Rev. <u>120</u> , 1585 (1960) |
| 1650A
R | Band-Pass Measurements of a Lunar Reflection Circuit | R. P. Ingalls
L. E. Bird
J. W. B. Day | Proc. IRE (Correspondence) <u>49</u> , 631 (1961) |
| 1652 | The Traveling Wave Resonator and High Power Microwave Testing | S. J. Miller | Microwave J. <u>3</u> , No. 9, 50 (1960) |
| 1653 | Review of "A Tunnel Diode Tenth Microsecond Memory," by M. M. Kaufman | R. E. McMahon | Trans. IRE, PGEC <u>EC-9</u> , 527 (1960) |

Journal Articles

JA No.

- | | | | |
|-----------|---|---|---|
| 1654 | Review of "Use of a Computer to Design Character Recognition Logic," by R. J. Evey | W. Doyle | Trans. IRE, PGEC <u>EC-9</u> , 522 (1960) |
| 1655 | Frequency Variations Due to Over-the-Horizon Tropospheric Propagation | J. H. Chisholm
S. J. Goodman §
J. M. Kennedy §
L. B. Lambert §
L. P. Rainville
J. F. Roche | Trans. IRE, PGAP <u>AP-9</u> , 384 (1961) |
| 1657 | Review of "Encoding of Incompletely Specified Boolean Matrices," by T. A. Dolotta and E. J. McClusky, Jr. | L. L. Lebow
T. C. Bartee | Trans. IRE, PGEC <u>EC-9</u> , 517 (1960) |
| 1658
R | RF Hall Effect in a Superconductor | G. F. Dresselhaus
M. S. Dresselhaus | Phys. Rev. <u>120</u> , 1971 (1960) |
| 1659 | Magnetic Film Memory Design | J. I. Raffel
T. S. Crowther
A. H. Anderson
T. O. Herndon | Proc. IRE <u>49</u> , 155 (1961) |
| 1660
R | Infrared Magnetoreflexion in Bismuth. I. High Fields | B. Lax
J. G. Mavroides
H. J. Zeiger
R. J. Keyes | Phys. Rev. Letters <u>5</u> , 241 (1960) |
| 1661
R | Interband Magnetoreflexion in Bismuth. II. Low Fields | R. N. Brown
J. G. Mavroides
M. S. Dresselhaus
B. Lax | Phys. Rev. Letters <u>5</u> , 243 (1960) |
| 1662
R | Systems Applications of Solid-State Masers | J. W. Meyer | Electronics <u>33</u> , No. 45, 58 (1960) |
| 1663
R | Computer Models for Cognitive Processes | B. F. Green, Jr. | Psychometrika <u>26</u> , 85 (1961) |
| 1664A | Calibration of Prism Spectrometers in the Ultraviolet, Visible, and Near-Infrared Regions | S. Zwerdling
J. P. Theriault | Spectrochim. Acta <u>17</u> , 819 (1961) |
| 1665 | Design Using Computers | T. C. Bartee | Chap. 6, <u>A Survey of Switching Circuit Theory</u> , E. J. McCluskey and T. C. Bartee, Eds. (McGraw-Hill, New York, 1962) |
| 1667 | Free Versus Serial Recall | N. C. Waugh | J. Exptl. Psychol. <u>62</u> , 496 (1961) |
| 1669 | Compound Cryosars for Low-Temperature Computer Memories | R. H. Rediker
A. L. McWhorter | Solid-State Electron. <u>2</u> , 100 (1961) |
| 1670
R | Calculation of Klystron Cavity Interaction | R. L. Pease | Trans. IRE, PGED <u>ED-8</u> , 170 (1961) |

Journal Articles

JA No.

1674 R	A Theoretical Limitation on the Formation of Lossless Multiple Beams in Linear Arrays	J. L. Allen	Trans. IRE, PGAP <u>AP-9</u> , 350 (1961)
1673 R	Perturbations of the Orbit of the Echo Balloon	I. I. Shapiro H. M. Jones	Science <u>132</u> , 1484 (1960)
1674 R	Solid Solutions of In_2Te_3 in Sb_2Te_3 and Bi_2Te_3	A. J. Rosenberg A. J. Strauss	J. Phys. Chem. Solids <u>19</u> , 105 (1961)
1675 R	Electrical Properties of n-Type GaSb	A. J. Strauss	Phys. Rev. <u>121</u> , 1087 (1961)
1677 R	Exchange Integral in Cobalt from Spin-Wave Resonance	P. E. Tannenwald R. Weber	Phys. Rev. <u>121</u> , 715 (1961)
1678 R	The Induction-Coupled Plasma Torch	T. B. Reed	J. Appl. Phys. <u>32</u> , 821 (1961)
1680 R	Communications Through Unspecified Additive Noise	W. L. Root	Inform. and Control <u>4</u> , 15 (1961)
1681 R	Stimulus Programming in Psychophysics	J. E. K. Smith	Psychometrika <u>26</u> , 27 (1961)
1682 R	A Transient Discrete Time Queue with Finite Storage	J. R. Kinney	Ann. Math. Stat. <u>33</u> , 130 (1962)
1685 R	Measuring <u>Really</u> Large Diameters	C. A. Pappas	Am. Machinist <u>105</u> , 92 (1961)
1687	Error Statistics and Coding for Binary Transmission Over Telephone Circuits	A. B. Fontaine R. G. Gallager	Proc. IRE <u>49</u> , 1059 (1961)
1688 R	Computer Languages for Symbol Manipulation	B. F. Green, Jr.	Trans. IRE, PGEC <u>EC-10</u> , 729 (1961)
1691 R	Machine Preparation of Printed-Wiring Masks	E. A. Guditx	Trans. IRE, PGPEP <u>PEP-5</u> , 22 (1961)
1692 R	Cyclotron Resonance in Indium Antimonide at High Magnetic Fields	B. Lax J. G. Mavroides H. J. Zeiger R. J. Keyes	Phys. Rev. <u>122</u> , 31 (1961)
1693 R	A Poisson Kernel for Certain Homogeneous Spaces	R. Hermann	Proc. Am. Math. Soc. <u>12</u> , 892 (1961)
1697 R	Hexagonal Iron Nitrides	A. Wold R. J. Arnott N. Menyuk	J. Phys. Chem. <u>65</u> , 1068 (1961)
1698 R	Interferometer Techniques Applied to Radar	E. Gehrels A. Parsons	Trans. IRE, PGMIL <u>MIL-5</u> , 139 (1961)

Journal Articles

JA No.

- | | | | |
|-----------|---|--|--|
| 1700
R | The Radar Measurement of Range, Velocity and Acceleration | E. J. Kelly, Jr. | Trans. IRE, PGML, ML-5, 51 (1961) |
| 1702
R | Vowel Recognition Using a Multiple Discriminant Function | J. E. K. Smith
L. Klem | J. Acoust. Soc. Am. 33, 358 (1961) |
| 1703
R | The Lincoln Laboratory Antenna Test Range | A. Cohen
A. W. Maltese | Microwave J. 4, No. 4, 57 (1961) |
| 1704
R | Emission Spectrographic Analysis of Fused Aluminum Oxide and Fused Tin Oxide Crystals | E. B. Owens | Appl. Spectroscopy 16, 86 (1962) |
| 1707
R | Necessity and Experimental Consistency of Antiferromagnetic Ground State without Long-Range Order | G. W. Pratt, Jr. | Phys. Rev. 122, 489 (1961) |
| 1708
R | Cobalt Ferrite Single Crystals | A. Ferretti
R. J. Arnott
E. Delaney
A. Wold | J. Appl. Phys. 32, 905 (1961) |
| 1709
R | Characteristics of the {111} Surfaces of the III-V Inter-metallic Compounds. II. Surface Damage | H. C. Gatos
M. C. Lavine
E. P. Warekois | J. Electrochem. Soc. 108, 645 (1961) |
| 1710
R | Antimony Edge Dislocations in InSb | H. C. Gatos
M. C. Finn
M. C. Lavine | J. Appl. Phys. 32, 1174 (1961) |
| 1711
R | The Computer as a Pattern Generator for Perceptual Research | B. W. White | Behavioral Sci. 6, 253 (1961) |
| 1712
R | Hydromagnet: A Self-Generating Liquid Conductor Electromagnet | H. H. Kolm
O. K. Mawardi § | J. Appl. Phys. 32, 1296 (1961) |
| 1714
R | Man-Computer Cooperation in Decisions Requiring Common Sense | D. B. Yntema
W. S. Torgerson | Trans. IRE, PGHFE HFE-2, 20 (1961) |
| 1716
R | A New Treatment of Bose-Chaudhuri Codes | H. F. Mattson §
G. Solomon | J. Soc. Ind. Appl. Math. 9, 654 (1961) |
| 1717
R | Stimulus-Conditions Affecting a Recently Discovered Stereoscopic Effect | B. W. White | Am. J. Psychol. 75, 411 (1962) |
| 1718
R | Keeping Track of Variables That Have Few or Many States | D. B. Yntema
G. E. Mueser | J. Exptl. Psychol. 63, 391 (1962) |
| 1719
R | 100-200 kMc Water Calorimeter | J. B. Thaxter
J. McGowan, III | Rev. Sci. Instr. 32, 605 (1961) |

JA No.

- | | | | |
|-----------|--|--|---|
| 1720
R | Induction Heated Pressure Vessel for Growing Oxide Single Crystals | A. Ferretti
D. G. Wickham
A. Wold | Rev. Sci. Instr. <u>32</u> , 566 (1961) |
| 1721
R | Relationship Between Crystal Symmetry and Magnetic Properties of Ionic Compounds Containing Mn^{3+} | J. B. Goodenough
A. Wold
R. J. Arnett
N. Menyuk | Phys. Rev. <u>124</u> , 373 (1961) |
| 1722
R | Atmospheric Absorption of 10-400 kMcps Radiation: Summary and Bibliography to 1961 | E. S. Rosenblum | Microwave J. <u>4</u> , No. 3, 91 (1961) |
| 1723
R | Evidence for Canted Magnetic Moments in Manganous Stannate (Mn_2SnO_4) | D. G. Wickham
N. Menyuk
K. Dwight | J. Phys. Chem. Solids <u>20</u> , 316 (1961) |
| 1724
R | Recognition of Patterns in the EEG | B. G. Farley | <u>Computer Techniques in EEG Analysis</u> (Elsevier Publishing Co., Amsterdam, 1961), 49 |
| 1725
R | The Differential Geometry of Foliations, II | R. Hermann | J. Math. and Mech. <u>11</u> , 303 (1962) |
| 1726
R | Speech Synthesis With Pre-recorded Syllables and Words | A. N. Stowe
D. B. Hampton § | J. Acoust. Soc. Am. <u>33</u> , 810 (1961) |
| 1727
R | Bats That Fish | J. J. G. McCue | Naval Research Reviews, 19 (May 1961) |
| 1728
R | Magnetic Field Dependence of the Superconducting Energy Gap | D. H. Douglass, Jr. | Phys. Rev. Letters <u>6</u> , 346 (1961) |
| 1729
R | A Simple Approximate Expression for Converting Directly from Noise Figures in DB to Noise Temperatures | E. P. McCurley
C. Blake | Microwave J. <u>4</u> , No. 4, 79 (1961) |
| 1730
R | Cryosar Memory Design | R. C. Johnston | Trans. IRE, PGEC <u>EC-10</u> , 712 (1961) |
| 1733 | On Differentials in Function Fields | P. L. Falb
O. Zariski § | Am. J. Math. <u>83</u> , 542 (1961) |
| 1735
R | Dangling Bonds in III-V Compounds | H. C. Gatos | J. Appl. Phys. <u>32</u> , 1232 (1961) |
| 1736 | On the Behavior of the Geometric Genus Under Ground Field Extension | P. L. Falb | Am. J. Math. <u>84</u> , 421 (1962) |
| 1737
R | Likelihood Ratios for Diffusion Processes With Shifted Mean Values | T. S. Pitcher | Trans. Am. Math. Soc. <u>101</u> , 168 (1961) |

Journal Articles

JA No.

1738 R	Properties of Orbiting Dipole Belts	W. E. Morrow, Jr. D. C. MacLellan	Astron. J. <u>66</u> , 107 (1961)
1739 R	Hole Injection During Reduction of Ferricyanide at a Germanium Electrode	W. W. Harvey	J. Phys. Chem. <u>65</u> , 1641 (1961)
1741 R	On the Existence of a Fundamental Domain for Riemannian Transformation Groups	R. Hermann	Proc. Am. Math. Soc. <u>13</u> , 489 (1962)
1744 R	Growth of Refractory Crystals Using the Induction Plasma Torch	T. B. Reed	J. Appl. Phys. <u>32</u> , 2534 (1961)
1745 R	Radar-Computer Display Traces Alphanumeric Characters	K. E. Perry E. J. Aho	Electronics <u>34</u> , No. 26, 75 (1961)
1746 R	Symmetry of Configurational Entropy in Lattice Statistics	W. H. Kleiner	J. Chem. Phys. <u>36</u> , 76 (1962)
1748 R	The Scattering Properties of the Lunar Surface at Radio Wave Lengths	J. V. Evans G. H. Pettengill	Chap. 5, The Moon, Meteorites, and Comets (The Solar System, Vol. IV)(Univ. of Chicago Press, 1963)
1749 R	On the Consistency of Quantum Field Theory	R. T. Prosser	Bull. Am. Math. Soc. <u>69</u> , 552 (1963)
1750 R	Theory of Interband Faraday Rotation in Semiconductors	B. Lax Y. Nishina §	Phys. Rev. Letters <u>6</u> , 464 (1961)
1752 R	Design of Wide-Band Shielded Toroidal RF Transformers	R. S. Berg B. Howland	Rev. Sci. Instr. <u>32</u> , 864 (1961)
1753	Solution of Schrödinger Equation for a Periodic Lattice	L. Eyges	Phys. Rev. <u>123</u> , 1673 (1961)
1757 R	'Erektor Subrack Kit' Adapts to Various Board Sizes	W. F. McBride	Elec. Design News <u>7</u> , 64 (1962)
1758 R	Description of Impurity Ionization in Semiconductors by Chemical Thermodynamics	W. W. Harvey	Phys. Rev. <u>123</u> , 1666 (1961)
1759 R	Some Effects of Anisotropy on Spiral Spin-Configuration with Application to Rare-Earth Metals	T. A. Kaplan	Phys. Rev. <u>124</u> , 329 (1961)
1760 R	The Scale of the Solar System	The Staff, Millstone Radar Observatory	Nature <u>190</u> , 592 (1961)
1763A R	Recognition of Familiar Characters Under an Unfamiliar Transformation	B. W. White	Percept. and Motor Skills <u>15</u> , 107 (1962)

Journal Articles

JA No.

- | | | | |
|------------|--|---|--|
| 1765A
R | On a System of Integrodifferential Equations Occurring in Reactor Dynamics. II | J. J. Levin
J. A. Nohel § | Arch. Ratl. Mech. Anal. <u>11</u> , 210 (1962) |
| 1766 | Impurity Striations in Unrotated Crystals of InSb | H. C. Gatos
A. J. Strauss
M. C. Lavine
T. C. Harman | J. Appl. Phys. <u>32</u> , 2057 (1961) |
| 1767
R | A Theory of Transistor Cutoff Frequency (f_T) Falloff at High Current Densities | C. T. Kirk, Jr. | Trans. IRE, PGED <u>ED-9</u> , 164 (1962) |
| 1768
R | High-Power Duplexers | C. E. Muehe, Jr. | Trans. IRE, PGMTT <u>MTT-9</u> , 506 (1961) |
| 1769A
R | Effect of Temporal Ordering on Visual Recognition | B. W. White | Percept. and Motor Skills <u>15</u> , 75 (1962) |
| 1770
R | Ground-State Properties of Nuclear Matter | R. D. Puff | Ann. Phys. <u>13</u> , 317 (1961) |
| 1771 | Utilization of Order-Disorder Theory in Physical Adsorption. II. The Square Lattice | J. M. Honig | Advances in Chemistry Series, No. 33, 239 (1961) |
| 1772
R | Width of the Turbulent Trail Behind a Hypervelocity Sphere | R. E. Slattery
W. G. Clay | Phys. Fluids <u>4</u> , 1199 (1961) |
| 1773
R | Some Differential-Geometric Aspects of the Lagrange Variational Problem | R. Hermann | Illinois J. Math. <u>6</u> , 634 (1962) |
| 1775
R | Angular Dependence of Magnetoresistance in HgSe | T. C. Harman | J. Appl. Phys. <u>32</u> , 1800 (1961) |
| 1776
R | Measurement of Mitral Regurgitation by Indicator-Dilution Techniques | W. H. Levison §
W. D. Jackson §
H. Sherman
L. B. McGuire § | Circulation Res. <u>9</u> , 1109 (1961) |
| 1777
R | Elements of Order-Disorder Theory | J. M. Honig | J. Chem. Educ. <u>38</u> , 538 (1961) |
| 1779
R | Generalized Reed-Muller Codes | E. Weiss | Inform. and Control <u>5</u> , 213 (1962) |
| 1780
R | Cyclotron Resonance | B. Lax | Science <u>134</u> , 1333 (1961) |
| 1781
R | Direct Experimental Measurement of the Magnetic Field Dependence of the Superconducting Energy Gap of Aluminum | D. H. Douglass, Jr. | Phys. Rev. Letters <u>7</u> , 14 (1961) |
| 1783
R | Preparation of Stoichiometric Chromites | E. Whipple
A. Wold | J. Inorg. Nucl. Chem. <u>24</u> , 23 (1962) |

Journal Articles

JA No.

1784 R	Discussion of Incoherent Back-scatter Power Measurements at 440 Mc/s	V. C. Pineo H. W. Briscoe	J. Geophys. Res. <u>66</u> , 3965 (1961)
1785 R	Magnetotunneling in Lead Telluride	R. H. Rediker A. R. Calawa	J. Appl. Phys. <u>32S</u> , 2489 (1961)
1786 R	The Negative Resistances in Junction Diodes	I. Hefni	Proc. IRE (Correspondence) <u>49</u> , 1427 (1961)
1788 R	The Dielectric Constant of Liquid Helium	C. E. Chase E. Maxwell W. E. Millett §	Physica <u>27</u> , 1129 (1961)
1789	Magnetism and the Chemical Bond	J. B. Goodenough	Magnetism and the Chemical Bond, Interscience Monographs on Chemistry, F. A. Cotton, Ed., Vol. I (Interscience-Wiley, New York, 1963)
1790 R	Existence in the Large of Parallelism Homomorphisms	R. Hermann	Trans. Am. Math. Soc. <u>108</u> , 170 (1963)
1791 R	Magnetic Field Dependence of the Superconducting Penetration Depth in Thin Specimens	D. H. Douglass, Jr.	Phys. Rev. <u>124</u> , 735 (1961)
1793 R	Millimeter Cyclotron Resonance Experiments in Diamond	C. J. Rauch	Phys. Rev. Letters <u>7</u> , 83 (1961)
1794 R	Solid-State Devices Other than Semiconductors	B. Lax J. G. Mavroides	Proc. IRE <u>50</u> , 1011 (1962)
1795 R	Oscillatory Magnetoabsorption in InSb Under High Resolution	S. Zwerdling W. H. Kleiner J. P. Theriault	J. Appl. Phys. <u>32S</u> , 2418 (1961)
1796 R	Noncoherent Switching in Permalloy Films	D. O. Smith K. J. Harte	J. Appl. Phys. <u>33</u> , 1399 (1962)
1797 R	Crystallographic Polarity in the II-VI Compounds	E. P. Warekois M. C. Lavine A. N. Mariano H. C. Gatos	J. Appl. Phys. <u>33</u> , 690 (1962)
1798	The Structure and Switching of Permalloy Films	D. O. Smith	Chap. 34, Magnetism: a Treatise on Modern Theory and Materials, H. Suhl and G. T. Rado, Eds. (Academic Press, New York, 1963)
1799 R	Proposal for Magnetic Domain-Wall Storage and Logic	D. O. Smith	Trans. IRE, PGEC <u>EC-10</u> , 708 (1961)
1802 R	Tangential Limits of Functions of the Class S_α	J. R. Kinney	Proc. Am. Math. Soc. <u>14</u> , 68 (1963)
1803 R	Compression and Coding	E. Weiss	Trans. IRE, PGIT <u>IT-8</u> , 256 (1962)

JA No.

- | | | | |
|------------|--|---|---|
| 1805
R | Signal Sets with Uniform Correlation Properties | J. Max | J. Soc. Ind. Appl. Math. <u>10</u> , 113 (1962) |
| 1808
R | Radiation Damage Experiments on PbS Infrared Detectors | R. R. Billups
W. L. Gardner | Infrared Phys. <u>1</u> , 199 (1961) |
| 1809
R | Sequential Decoding for Discrete Input Memoryless Channels | B. Reiffen | Trans. IRE, PGIT <u>IT-8</u> , 208 (1962) |
| 1810
R | Effects of the Earth's Magnetic Field on the Orbit of a Charged Satellite | I. I. Shapiro
H. M. Jones | J. Geophys. Res. <u>66</u> , 4123 (1961) |
| 1812
R | Electrochemical and Adsorption Measurements on Single Crystals: The Germanium-Iodide Solution System | W. W. Harvey
H. J. LaFleur
H. C. Gatos | J. Electrochem. Soc. <u>109</u> , 155 (1962) |
| 1813A
R | Radiation Effects in $\text{CaF}_2\text{:Sm}$ | J. R. O'Connor
H. A. Bostick | J. Appl. Phys. <u>33</u> , 1868 (1962) |
| 1815
R | A Note on a New Class of Codes | G. Solomon | Inform. and Control <u>4</u> , 364 (1961) |
| 1816
R | Classical Theory of the Ground Spin-State in Cubic Spinels | D. H. Lyons
T. A. Kaplan
K. Dwight
N. Menyuk | Phys. Rev. <u>126</u> , 540 (1962) |
| 1817
R | A Versatile Stochastic Model of a Function of Unknown and Time Varying Form | H. J. Kushner | J. Math. Anal. Appl. <u>5</u> , 150 (1962) |
| 1818 | Computer Techniques for the Study of Patterns in the Electroencephalogram | B. G. Farley
L. S. Frishkopf
W. A. Clark, Jr.
J. T. Gilmore, Jr. | Trans. IRE, PGBME <u>BME-9</u> 4 (1962) |
| 1819
R | Characteristics of the {III} Surfaces of the III-V Inter-metallic Compounds: III The Effects of Surface Active Agents on InSb and the Identification of Antimony Edge Dislocations | M. C. Lavine
H. C. Gatos
M. C. Finn | J. Electrochem. Soc. <u>108</u> , 974 (1961) |
| 1820
R | Interband Transitions for Metals in a Magnetic Field | M. S. Dresselhaus
G. F. Dresselhaus | Phys. Rev. <u>125</u> , 499 (1962) |
| 1821 | Microwave Devices | K. J. Button | Chap. 25, <u>Magnetism: a Treatise on Modern Theory and Materials</u> , H. Suhl and G. T. Rado, Eds. (Academic Press, New York, 1963) |
| 1822
R | Visual Acuity under Blue Illumination | R. T. Mitchell
R. R. Mitchell | Trans. IRE, PGHFE <u>HFE-3</u> , 14 (1962) |

Journal Articles

JA No.

1824 R	Radar Reflections from the Sun at Very High Frequencies	W. G. Abel J. H. Chisholm P. L. Fleck J. C. James	J. Geophys. Res. <u>66</u> , 4303 (1961)
1825 R	Eyes and Ears for Computers	E. E. David, Jr. § O. G. Selfridge	Proc. IRE <u>50</u> , 1093 (1962)
1826	Magnetism and Crystal Structure in Nonmetals	J. B. Goodenough	Chap. 9, <u>Magnetism: a Treatise on Modern Theory and Materials</u> , H. Suhl and G. T. Rado, Eds. (Academic Press, New York, 1963)
1828 R	Nonparabolic Conduction Band in HgSe and HgSe _{0.5} TE _{0.5}	G. B. Wright A. J. Strauss T. C. Harman	Phys. Rev. <u>125</u> , 1534 (1962)
1830A R	The Multiplicity of Thought	U. Neisser	Brit. J. Psychol. <u>54</u> , 1 (1963)
1831 R	Diurnal Power Variations of the Earth-Ionosphere Cavity Modes and Their Relationship to Worldwide Thunderstorm Activity	M. Balser C. A. Wagner	J. Geophys. Res. <u>67</u> , 619 (1962)
1832A R	A New Teehnique for Investiga-tion of Meteor Echoes at UHF	G. H. Pettengill	J. Geophys. Res. <u>67</u> , 409 (1962)
1833 R	Theory of Bloch Electrons in a Magnetic Field	L. M. Roth	J. Phys. Chem. Solids <u>23</u> , 433 (1962)
1834	Lifetimes of Orbiting Dipoles	I. I. Shapiro H. M. Jones	Science <u>134</u> , 973 (1961)
1835 R	Mechanical Developer for Mass Spectrographic Plates	E. B. Owens	Rev. Sci. Instr. <u>32</u> , 1420 (1961)
1840 R	Interband Transitions in Superconductors	G. Dresselhaus M. S. Dresselhaus	Phys. Rev. <u>125</u> , 1212 (1962)
1841 R	An RF Multiple Beam-Forming Technique	W. P. Delaney	Trans. IRE, PGMIL <u>MIL-6</u> , 179 (1962)
1841A	Steering Radar Antenna Beams with a Lossless R-F Matrix	W. P. Delaney	Electronics <u>35</u> , No. 28, 50 (1962)
1847 R	Tunnel Diode Burnout from the Video Transient of Gaseous Noise Sources	C. Blake W. C. Ince	Trans. IRE, PGMTT <u>MTT-10</u> 88 (1962)
1848 R	Computer Program for Pitch Extraetion	B. Gold	J. Acoust. Soc. Am. <u>34</u> , 916 (1962)
1851 R	Distribution of the Normalized Periodogram Detector	R. P. Wishner	Trans. IRE, PGIT <u>IT-8</u> , 342 (1962)

JA No.

- | | | | |
|------------|---|---|---|
| 1852
R | Vapor Growth of Tin Oxide Crystals | T. B. Reed
J. T. Roddy
A. N. Mariano | J. Appl. Phys. <u>33</u> , 1014 (1962) |
| 1853
R | Design of a Repairable Redundant Computer | R. Teoste | Trans. IRE, PGEC <u>EC-11</u> , 643 (1962) |
| 1854
R | Low Electron Effective Masses and Energy Gap in $\text{Cd}_x\text{Hg}_{1-x}\text{Te}$ | T. C. Harman
A. J. Strauss
D. H. Dickey
M. S. Dresselhaus
G. B. Wright
J. G. Mavroides | Phys. Rev. Letters <u>7</u> , 403 (1961) |
| 1855
R | The Effect of Ion Mass and Ion Energy on the Sensitivity of Ilford Q ₂ Plates as Ion Detectors in Mass Spectrography | E. B. Owens | Appl. Spectroscopy <u>16</u> , 148 (1962) |
| 1856
R | Sophistication in Computers: a Disagreement | J. R. Kelly, Jr. §
O. G. Selfridge | Trans. IRE, PGIT <u>IT-8</u> , 78 (1962)
Proc. IRE <u>50</u> , 1459 (1962) |
| 1858
R | The Great Bat Mystery | J. J. G. McCue | Indust. Photography <u>10</u> , 48 (1961) |
| 1860
R | Galvano-Thermomagnetic Effects in Degenerate Semiconductors and Semimetals with Nonparabolic Band Shapes: II. General Theory | T. C. Harman
J. M. Honig | J. Phys. Chem. Solids <u>23</u> , 913 (1962) |
| 1861
R | Properties of 400 Mcps Long-Distance Tropospheric Circuits | J. H. Chisholm
W. E. Morrow
B. E. Nichols
J. F. Roche
A. E. Teachman § | Proc. IRE <u>50</u> , 2464 (1962) |
| 1862 | Bakcable Absolute Pressure Gauge for the Millimeter of Mercury Range | W. J. Concell §
H. I. Mandelberg §
T. J. Beahn §
C. E. Muehc | Rev. Sci. Instr. <u>33</u> , 231 (1962) |
| 1863A
R | Nb ₃ In: A β -Tungsten Structure Superconducting Compound | M. D. Banus
T. B. Reed
H. C. Gatos
M. C. Lavine
J. A. Kafalas | J. Phys. Chem. Solids <u>23</u> , 971 (1962) |
| 1864
R | {100} Facets in Pulled Crystals of InSb | A. J. Strauss | Solid-State Electron. <u>5</u> , 97 (1962) |
| 1867
R | Solution of Schrödinger Equation for a Periodic Lattice. II. | L. Eyges | Phys. Rev. <u>126</u> , 93 (1962) |
| 1868
R | Model for Transient Oscillations in a Three-Level Optical Maser | J. I. Kaplan
R. Zier | J. Appl. Phys. <u>33</u> , 2372 (1962) |

Journal Articles

JA No.

1869 R	The Theory of Tunneling and Its Dependence on a Longitudinal Magnetic Field	P. N. Argyres	Phys. Rev. <u>126</u> , 1386 (1962)
1870	Algebraic Number Theory	E. Weiss	<u>Algebraic Number Theory</u> (McGraw-Hill, New York, 1963)
1872 R	Correlation between Maximum Solid Solubility and Distribution Coefficient for Impurities in Ge and Si	S. Fischler	J. Appl. Phys. <u>33</u> , 1615 (1962)
1873 R	Electrolytic Polarization Resulting from Longitudinal Current in Electrodes	W. W. Harvey	J. Electrochem. Soc. <u>109</u> , 638 (1962)
1874 R	A Figure of Merit for the Design of Inductance Coils Having Low Distributed Capacitance	B. Howland	Trans. IRE, PGCP <u>CP-9</u> , 102 (1962)
1875 R	Computer Applications to Psychological Research: Studies in Perception	B. W. White	Behavioral Sci. <u>7</u> , 396 (1962)
1877 R	Decision Time Without Reaction Time: Experiments in Visual Scanning	U. Neisser	Am. J. Psychol. <u>76</u> , 376 (1963)
1878 R	Small He II Tight Optical Windows	C. J. Rauch W. C. Kernan	Rev. Sci. Instr. <u>33</u> , 496 (1962)
1880B	An Experimental Study of Bibliographical Coupling Between Technical Papers	M. M. Kessler	Trans. IEEE, PTGIT <u>IT-9</u> , 49 (1963)
1881 R	On the Ideal Structure of Operator Algebras	R. T. Prosser	Memoirs Am. Math. Soc., No. 45 (1963)
1882 R	Anomalous Magnetic Films	M. S. Cohen	J. Appl. Phys. <u>33</u> , 2968 (1962)
1884 R	High Magnetic Fields and High Frequencies	B. Lax	Microwave J. <u>5</u> , No. 2, 13 (1962)
1885 R	Adaptation of Lattice Vacancy Theory to Gas Adsorption Phenomena	J. M. Honig C. R. Mueller §	J. Phys. Chem. <u>66</u> , 1305 (1962)
1886 R	Ferro- and Antiferromagnetism in a Cubic Cluster of Spins	G. F. Dresselhaus	Phys. Rev. <u>126</u> , 1664 (1962)
1887 R	Hg-Se System	A. J. Strauss L. B. Farrell	J. Inorg. Nucl. Chem. <u>24</u> , 1211 (1962)
1888 R	Infrared Oscillations from $\text{CaF}_2:\text{U}^{+3}$ and $\text{BaF}_2:\text{U}^{+3}$ Masers	H. A. Bostick J. R. O'Connor	Proc. IRE <u>50</u> , 219 (1962)

Journal Articles

JA No.

1890 R	Gain and Impedance Variation in Scanned Dipole Arrays	J. L. Allen	Trans. IRE, PGAP <u>AP-10</u> , 566 (1962)
1891 R	Measurement of Turbulent Transition, Motion, Statistics, and Gross Radial Growth behind Hypervelocity Objects	R. E. Slattery W. G. Clay	Phys. Fluids <u>5</u> , 849 (1962)
1892 R	Array Radars - A Survey of Their Potential and Their Limitations	J. L. Allen	Microwave J. <u>5</u> , No. 5, 67 (1962)
1893 R	Quantitative Measurement of Semiconductor Homogeneity from Plasma Edge	D. F. Edwards P. D. Maker §	J. Appl. Phys. <u>33</u> , 2466 (1962)
1894 R	Negative Resistance InSb Diodes with Large Magnetic Field Effects	I. Melngailis R. H. Rediker	J. Appl. Phys. <u>33</u> , 1892 (1962)
1895 R	Likelihood Ratios for Stochastic Processes Related by Groups of Transformations	T. S. Pitcher	Illinois J. Math. <u>7</u> , 396 (1963)
1896 R	Hierarchies in Concept Attainment	U. Neisser P. Weene	J. Exptl. Psychol. <u>64</u> , 640 (1962)
1897A R	Riccati Algebras	J. J. Levin S. S. Shatz	Duke Math. J. <u>30</u> , 579 (1963)
1898 R	Communication Theory vs Communications	R. M. Lerner	Trans. IRE, PGIT <u>IT-8</u> , 325 (1962)
1901 R	Nonlinear Interband and Plasma Effects in Solids	B. Lax J. G. Mavroides D. F. Edwards	Phys. Rev. Letters <u>8</u> , 166 (1962)
1903 R	Idler Circuits in Varactor Frequency Multipliers	B. L. Diamond	Trans. IEEE, PTGCT <u>CT-10</u> , 98 (1963)
1904 R	Parametric Amplification and Oscillation at Optical Frequencies	R. H. Kingston	Proc. IRE (Correspondence) <u>50</u> , 472 (1962)
1905	A Heuristic Program that Solves Symbolic Integration Problems in Freshman Calculus	J. R. Slagle	J. Assoc. Comp. Mach. <u>10</u> , 507 (1963)
1907 R	An Electron Diffraction Technique for Identifying Oxide Layers on Crystal Surfaces	T. P. Turnbull	Norelco Reporter <u>9</u> , 77 (1962)
1908 R	Gibbs' Phase Rule and Euler's Formula	J. Mindel	J. Chem. Educ. <u>39</u> , 512 (1962)
1909 R	Time Optimal Control for Plants with Numerator Dynamics	M. Athanassiades P. L. Falb R. E. Kalman § E. B. Lee §	Trans. IRE, PGAC <u>AC-7</u> , 47 (1962)

Journal Articles

JA No.

1910 R	Storage and Logic Properties of Magnetic Domain-Walls	D. O. Smith	Solid State Des. <u>3</u> , 23 (1962)
1913 R	Ferro- and Antiferromagnetism in a Simple Cubic Lattice	G. F. Dresselhaus	Phys. Rev. <u>127</u> , 1137 (1962)
1914 R	Synthesis and Superconducting Properties of Nb ₃ Sn ₂ and Nb ₂ Sn ₃	T. B. Reed H. C. Gatos	J. Appl. Phys. <u>33</u> , 2657 (1962)
1915 R	Crystalline Structure and Surface Reactivity	H. C. Gatos	Science <u>137</u> , 311 (1962)
1916 R	Some Statistical Properties of Pulsed Oblique HF Ionospheric Transmissions	M. Balser W. B. Smith	J. Research Natl. Bur. Standards <u>66D</u> , 721 (1962)
1917 R	On Frequency Variations of the Earth-Ionosphere Cavity Modes	M. Balser C. A. Wagner	J. Geophys. Res. <u>67</u> , 4081 (1962)
1919 R	A Radar Investigation of Venus	G. H. Pettengill H. W. Briscoe J. V. Evans E. Gehrels G. M. Hyde L. G. Kraft R. Price W. B. Smith	Astron. J. <u>67</u> , 181 (1962)
1920 R	Note on the Creation of Pitch through Binaural Interaction	N. I. Durlach	J. Acoust. Soc. Am. <u>34</u> , 1096 (1962)
1921 R	Thermal Conduction in Liquid Helium II. I. Temperature Dependence	C. E. Chase	Phys. Rev. <u>127</u> , 361 (1962)
1922	Theory of Galvano-Thermomagnetic Energy Conversion Devices: I. Generators	T. C. Harman J. M. Honig	J. Appl. Phys. <u>33</u> , 3178 (1962)
1923A R	Optimal Control for Linear Time-Invariant Plants with Time, Fuel and Energy Constraints	M. Athanassiades	Trans. IEEE, Appl. and Indust. <u>82</u> , 8 (1963)
1924 R	An Alpha-State Finite Automaton for Multiplication by Alpha	J. M. Winett	Trans. IRE, PGEC <u>EC-11</u> , 412 (1962)
1925 R	Energy of a Vortex Ring in a Tube and Critical Velocities in Liquid Helium II	J. C. Fineman C. E. Chase	Phys. Rev. <u>129</u> , 1 (1963)
1927 R	Classical Theory of the Ground Spin-State in Normal Tetragonal Spinel. I. Neel, Yafet-Kittel, and Collinear Antiferromagnetic Modes	N. Menyuk K. Dwight D. H. Lyons T. A. Kaplan	Phys. Rev. <u>127</u> , 1983 (1962)

Journal Articles

JA No.

- | | | | |
|-----------|--|---|--|
| 1928
R | Quantum Effects in Ge and Si. I. | J. J. Stickler
H. J. Zeiger
G. S. Heller | Phys. Rev. <u>127</u> , 1077 (1962) |
| 1929
R | Distribution of Sulfur in InSb Single Crystals | M. D. Banus
H. C. Gatos | J. Electrochem. Soc. <u>109</u> , 829 (1962) |
| 1933
R | Elastic Strain Energy Associated with the "A" Surfaces of the III-V Compounds | R. E. Hanneman
M. C. Finn
H. C. Gatos | J. Phys. Chem. Solids <u>23</u> , 1553 (1962) |
| 1935
R | New Method for Calculating Molecular Orbitals with Application to cyclic Systems | L. Eyges | Phys. Rev. <u>128</u> , 1715 (1962) |
| 1937
R | Plasma Torches | T. B. Reed | Intl. Sci. and Tech. No. 6, 42 (1962) |
| 1939
R | Theory of Indirect Exchange Interactions in Rare-Earth Metals | T. A. Kaplan
D. H. Lyons | Phys. Rev. <u>129</u> , 2072 (1963) |
| 1941
R | The Well-Rounded Man | B. Lax | Microwave J. <u>5</u> , No. 6, 13 (1962) |
| 1943
R | Growth of Ferrous-Free Cobalt Ferrite Single Crystals | A. Ferretti
W. Kunnmann
A. Wold | J. Appl. Phys. <u>34</u> , 388 (1963) |
| 1944
R | Infrared Absorption Spectrum of Sulfur-Doped Silicon | W. E. Krag
H. J. Zeiger | Phys. Rev. Letters <u>8</u> , 485 (1962) |
| 1945
R | Theory of Galvano-Thermomagnetic Energy Conversion Devices: II. Refrigerators and Heat Pumps | T. C. Harman
J. M. Honig | J. Appl. Phys. <u>33</u> , 3188 (1962) |
| 1946
R | Transcontinental Satellite Television Transmission | D. H. Hamilton
H. H. Hoover
R. V. Locke
D. C. MacLellan
W. E. Morrow
B. E. Nichols
T. F. Rogers
P. Waldron | Proc. IRE (Correspondence) <u>50</u> , 1522 (1962) |
| 1947 | Methods for the Adaptive Optimization of Binary Detection Systems | H. J. Kushner | Accepted Trans. IEEE, PTGIT |
| 1948
R | A Note on Threshold Device Error Analysis | P. E. Wood, Jr. | Trans. IEEE, PTGEC <u>EC-12</u> , 403 (1963) |
| 1949 | Recombination Radiation Emitted by Gallium Arsenide | R. J. Keyes
T. M. Quist | Proc. IRE (Correspondence) <u>50</u> , 1822 (1962) |
| 1950
R | The Asymptotic Behavior of the Solution of a Volterra Equation | J. J. Levin | Proc. Am. Math. Soc. <u>14</u> , 534 (1963) |

Journal Articles

JA No.

1951 R	High Pressure Phase Transition in Mercury Selenide	J. A. Kafalas H. C. Gatos M. C. Lavine M. D. Banus	J. Phys. Chem. Solids <u>23</u> , 1541 (1962)
1952 R	On the Effect of Mutual Coupling on Unequally Spaced Dipole Arrays	J. L. Allen W. P. Delaney	Trans. IRE, PGAP <u>AP-10</u> , 784 (1962)
1954 R	Preparation of Niobium-Tin Wires for Microscopy	T. P. Turnbull H. H. Ehlers	Rev. Sci. Instr. <u>33</u> , 876 (1962)
1957 R	Deviations from Stoichiometry and Electrical Properties in SnTe	R. F. Brebrick	J. Phys. Chem. Solids <u>24</u> , 27 (1963)
1958 R	A Circuit for the Square Root of the Sum of the Squares	T. E. Stern § R. M. Lerner	Proc. IEEE <u>51</u> , 593 (1963)
1959 R	The Computation of Electromagnetic Scattering from Concentric Spherical Structures	J. J. Mikułski E. L. Murphy	Trans. IEEE, PTGAP <u>AP-11</u> , 169 (1963)
1960 R	The Convex Hull of Plane Brownian Motion	J. R. Kinney	Ann. Math. Stat. <u>34</u> , 327 (1963)
1961 R	The Effect of the Earth's Magnetic Field on Irregularities of Ionization in the E Layer	F. Villars § H. Feshbach §	J. Geophys. Res. <u>68</u> , 1303 (1963)
1962 R	Largest-Of N Selection Systems Affected by Multipath Time Spreading	J. Dumanian	Proc. IEEE (Correspondence) <u>51</u> , 390 (1963)
1963	Queueing of a Telephone Data Transmission System with Feedback	A. B. Fontaine	Trans. IEEE, Commun. Electron., No. 68, 449 (1963)
1965 R	The Relation Between the Chemical Potential of Electrons and Energy Parameters of the Band Theory as Applied to Semiconductors	W. W. Harvey	J. Phys. Chem. Solids <u>23</u> , 1545 (1962)
1966 R	Diurnal Variation of the Temperature of the F Region	J. V. Evans	J. Geophys. Res. <u>67</u> , 4914 (1962)
1967 R	Laminar-Turbulent Transition and Subsequent Motion Behind Hypervelocity Spheres	R. E. Slattery W. G. Clay	ARS J. <u>32</u> , 1427 (1962)
1969 R	Error Probabilities for Adaptive Multichannel Reception of Binary Signals: Addendum	R. Price	Trans. IRE, PGIT <u>IT-8</u> , 387 (1962)

Journal Articles

JA No.

- | | | | |
|------------|---|---|---|
| 1970
R | Theory of Galvano-Thermomagnetic Energy Conversion Devices. III. Generators Constructed from Anisotropic Materials | T. C. Harman
J. M. Honig | J. Appl. Phys. <u>34</u> , 189 (1963) |
| 1971
R | Real-Channel Aspects of an Error-Free Data Transmission System for Toll-Grade Telephone Circuits | W. G. Schmidt | Trans. IEEE, PTGCS <u>CS-11</u> , 69 (1963) |
| 1972
R | Superconducting Resonant Cavities | E. Maxwell | Progress in Cryogenics, Vol. 4 (Academic Press, New York, 1964) |
| 1973A
R | The Preparation and Properties of Some Vanadium Spinels | D. B. Rogers
R. J. Arnott
A. Wold
J. B. Goodenough | J. Phys. Chem. Solids <u>24</u> , 347 (1963) |
| 1974
R | A Pulse Compression System Employing a Linear FM Gaussian Signal | E. N. Fowle
D. R. Carey
R. E. VanderSchoor
R. C. Yost | Proc. IEEE <u>51</u> , 304 (1963) |
| 1976
R | The Sensitivity of Radiometric Measurements | E. J. Kelly
D. H. Lyons
W. L. Root | J. Soc. Ind. Appl. Math. <u>11</u> , 235 (1963) |
| 1978
R | The Admissible Mean Values of a Stochastic Process | T. S. Pitcher | Trans. Am. Math. Soc. <u>108</u> , 538 (1963) |
| 1979
R | Angular and Magnitude Dispersion of the Anisotropy in Magnetic Films | T. S. Crowther | J. Appl. Phys. <u>34</u> , 580 (1963) |
| 1980
R | Crystallographic Polarity of ZnO Crystals | A. N. Mariano
R. E. Hanneman | J. Appl. Phys. <u>34</u> , 384 (1963) |
| 1981
R | The Madistor - A Magnetically Controlled Semiconductor Plasma Device | I. Melngailis
R. H. Rediker | Proc. IRE <u>50</u> , 2428 (1962) |
| 1982
R | Optimal Stochastic Control | H. J. Kushner | Trans. IRE, PGAC <u>AC-7</u> , 120 (1962) |
| 1983
R | Spectral Widths and Shapes and Other Characteristics of Incoherent Backscatter from the Ionosphere Observed at 440 Mcps during a 24-Hour Period in May 1961 | V. C. Pineo
D. P. Hynek | J. Geophys. Res. <u>67</u> , 5119 (1962) |
| 1984
R | Gallium-Arsenide Diode Sends Television by Infrared Beam | R. H. Rediker
R. J. Keyes
T. M. Quist
M. J. Hudson
C. R. Grant
R. G. Burgess | Electronics <u>35</u> , No. 40, 44 (1962) |

Journal Articles

JA No.

1985 R	Notes on a Nonlinear Volterra Equation	J. J. Levin J. A. Nohel §	Proc. Am. Math. Soc. <u>14</u> , 924 (1963)
1986 R	The Design of a Constant-Angle or Power-Law Magnitude Impedance	R. M. Lerner	Trans. IEEE, PTGCT <u>CT-10</u> , 98 (1963)
1987 R	Comments on Similarity Considerations for Varactor Multipliers	P. Penfield § B. L. Diamond	Microwave J. <u>5</u> , No. 9, 22 (1962)
1988	A Lunar Theory Reasserted – A Rebuttal	J. V. Evans	J. Research Natl. Bur. Standards <u>67D</u> , 1 (1963)
1990 R	Exact Distribution Functions of Test Length for Sequential Processors with Discrete Input Data	J. G. Proakis	Trans. IEEE, PTGIT <u>IT-9</u> , 182 (1963)
1991 R	Operating Characteristics of Transverse (Nernst) Anisotropic Galvano-Thermomagnetic Generators	T. C. Harman J. M. Honig	Appl. Phys. Letters <u>1</u> , 31 (1962)
1992 R	Enhancement of Radar Reflectivity Associated with the Lunar Crater Tycho	G. H. Pettengill J. C. Henry	J. Geophys. Res. <u>67</u> , 4881 (1962)
1993 R	Velocity of Sound in Liquid Helium at Low Temperatures	W. M. Whitney § C. E. Chase	Phys. Rev. Letters <u>9</u> , 243 (1962)
1994 R	The Scattering Behavior of the Moon at Wavelengths of 3.6, 68 and 784 Centimeters	J. V. Evans G. H. Pettengill	J. Geophys. Res. <u>68</u> , 423 (1963)
1995 R	Operating Characteristics of Nernst Refrigerators for Anisotropic Materials	T. C. Harman J. M. Honig	J. Appl. Phys. <u>34</u> , 239 (1963)
1997 R	On the Sample Functions of Processes Which Can Be Added to a Gaussian Process	T. S. Pitcher	Ann. Math. Stat. <u>34</u> , 329 (1963)
1998	Golden Years of Applied Science	B. Lax	Microwave J. <u>5</u> , No. 10, 13 (1962)
2000 R	Nonlinear Effects in Solids	P. L. Kelley	J. Phys. Chem. Solids <u>24</u> , 607 (1963)
2001 R	Magnetoreflexion in Bismuth	R. N. Brown J. G. Mavroides B. Lax	Phys. Rev. <u>129</u> , 2055 (1963)
2004 R	Low-Cost Thermocouple Potentiometer	F. T. Worrell	Am. J. Phys. <u>31</u> , 216 (1963)
2005 R	High-Field Superconductivity in Niobium	S. H. Autler E. S. Rosenblum K. H. Gooen §	Phys. Rev. Letters <u>9</u> , 489 (1962)

Journal Articles

JA No.

2006 R	Routing Procedures in Communications Networks. Part I: Random Procedures; Part II: Directory Procedures	R. T. Prosser	Trans. IRE, PGCS <u>CS-10</u> , 322 (1962)
2007A R	Experimental Study of Charge Drag on Orbiting Dipoles	I. I. Shapiro I. Maron § L. G. Kraft, Jr.	J. Geophys. Res. <u>68</u> , 1845 (1963)
2008 R	Switching Thresholds of Weakly Coupled Ferromagnetic Domains	K. J. Harte D. O. Smith	J. Appl. Phys. <u>34</u> , 442 (1963)
2009 R	The Microwave Spectrum of Oxygen in the Earth's Atmosphere	M. L. Meeks A. E. Lilley §	J. Geophys. Res. <u>68</u> , 1683 (1963)
2012 R	Computation with Finite Fields	T. C. Bartee D. I. Schneider	Inform. and Control <u>6</u> , 79 (1963)
2013 R	Helium-Cooled L-Band Parametric Amplifier	C. Blake L. W. Bowles E. P. McCurley J. A. Nuttall	Appl. Phys. Letters <u>2</u> , 17 (1963)
2014 R	Galvano-Thermomagnetic Phenomena. IV. Application to Anisotropic Adiabatic Nernst Generators	T. C. Harman J. M. Honig B. M. Tarmy	J. Appl. Phys. <u>34</u> , 2215 (1963)
2015 R	The Degarbler – A Program for Correcting Machine-Read Morse Code	C. K. McElwain M. B. Evens	Inform. and Control <u>5</u> , 368 (1962)
2016	Correlated Orientation Sounds and Ear Movements of Horseshoe Bats	D. A. Cahlander F. A. Webster § D. R. Griffin § D. C. Dunning §	Nature <u>196</u> , 1185 (1962)
2018 R	Criteria for the Optimization of the Nernst Figure of Merit	T. C. Harman	Appl. Phys. Letters <u>2</u> , 13 (1962)
2019 R	Pitch-Induced Spectral Distortion in Channel Vocoders	B. Gold J. Tierney	J. Acoust. Soc. Am. <u>35</u> , 730 (1963)
2021A R	Convergent Perturbation Expansions for Certain Wave Operators	R. T. Prosser	J. Math. Phys. <u>5</u> , 708 (1964)
2022 R	Key to Faster Computers: Ten-Nanosecond Amplifier	K. H. Konkle J. E. Laynor	Electronics <u>35</u> , No. 50, 39 (1962)
2023 R	A Survey of Varactor Diode Parametric Amplifier Characteristics	C. Freed	Microwave J. <u>6</u> , No. 1, 75 (1963)
2024 R	The Imitation of Man by Machine	U. Neisser	Science <u>139</u> , 193, (1963)

Journal Articles

JA No.

- | | | | |
|--------------|---|--|---|
| 2025
R | Adaptation of Lattice Liquid Model to Gas Adsorption Phenomena | J. M. Honig
W. H. Kleiner | Surface Sci. <u>1</u> , 71 (1964) |
| 2026
R | Aberration Theories for Semi-automatic Lens Design by Electronic Computers. I. Preliminary Remarks; II. A Specific Computer Program | D. S. Grey | J. Opt. Soc. Am. <u>53</u> , 672 (1963) |
| 2028
R | Injection Electroluminescence in Gallium Antimonide | A. R. Calawa | J. Appl. Phys. <u>34</u> , 4660 (1963) |
| 2034
R | Is the Slug Necessary? | F. T. Worrell | Am. J. Phys. <u>31</u> , 305 (1963) |
| 2032-I
R | Theory of Semiconductor Maser of GaAs | A. L. McWhorter
H. J. Zeiger
B. Lax | J. Appl. Phys. <u>34</u> , 235 (1963) |
| 2032-II
R | Semiconductor Maser of GaAs | T. M. Quist
R. H. Rediker
R. J. Keyes
W. E. Krag
B. Lax
A. L. McWhorter
H. J. Zeiger | Appl. Phys. Letters <u>1</u> , 91 (1962) |
| 2033
R | Nonlinear Oscillations of Fixed Period | J. J. Levin
S. S. Shatz | J. Math. Anal. Appl. <u>7</u> , 284 (1963) |
| 2034
R | Keeping Track of Several Things at Once | D. B. Yntema | Human Factors <u>5</u> , 7 (1963) |
| 2035 | Cyclotron Resonance and Magneto-Optical Effects in Semiconductors | B. Lax | <u>Proceedings of the International School of Physics Enrico Fermi</u> , (Academic Press, New York, 1963) |
| 2036
R | Phenomena at a Solid-Melt Interface | J. R. O'Connor | J. Electrochem. Soc. <u>110</u> , 338 (1963) |
| 2037
R | Oscillatory Quantum Effects in the Ultrasonic Velocity in Bismuth | J. G. Mavroides
B. Lax
K. J. Button
Y. Shapira § | Phys. Rev. Letters <u>9</u> , 451 (1962) |
| 2038
R | Effect of a High-Altitude Nuclear Detonation on the Earth-Ionosphere Cavity | M. Balser
C. A. Wagner | J. Geophys. Res. <u>68</u> , 4115 (1963) |
| 2039
R | Galvano-Thermomagnetic Effects in Semiconductors and Semimetals. III. The Standard and Kane Band Models | T. C. Harman
J. M. Honig
B. M. Tarmy | J. Phys. Chem. Solids <u>24</u> , 835 (1963) |
| 2040
R | High-Field Antiferromagnetic Resonance in Cr_2O_3 | S. Foner | Phys. Rev. <u>130</u> , 183 (1963) |

Journal Articles

JA No.

- | | | | |
|------------|--|---|--|
| 2041A
R | Propagation Constants for TE and TM Surface Waves on an Anisotropic Dielectric Cylinder | P. R. Longaker
C. S. Roberts § | Trans. IEEE, PTGMMT <u>MTT-11</u> , 543 (1963) |
| 2042
R | Color Centers in Alkaline Earth Fluorides | J. R. O'Connor
J. H. Chen § | Phys. Rev. <u>130</u> , 1790 (1963) |
| 2043
R | High Speed Heterojunction Photodiodes and Beam-of-Light Transistors | R. H. Rediker
T. M. Quist
B. Lax | Proc. IEEE (Correspondence) <u>51</u> , 218 (1963) |
| 2044
R | Likelihood Ratios for Stochastic Processes Related by Groups of Transformations, II | T. S. Pitcher | Illinois J. Math <u>8</u> , 271 (1964) |
| 2045
R | High-Pressure Tetragonal Phase of InSb | M. D. Banus
R. E. Hanneman
A. N. Mariano
E. P. Warekoi
H. C. Gatos
J. A. Kafalas | Appl. Phys. Letters <u>2</u> , 35 (1963) |
| 2046A
R | Asymptotically Optimum Quantizers and Optimum Analog to Digital Converters for Continuous Signals | L. Bluestein | Accepted Trans. IEEE, PTGIT |
| 2048
R | Modern Radar | H. G. Weiss | Intl. Sci. and Tech. No. 13, 75 (1963) |
| 2049
R | Heat-Transfer Intensity from Induction Plasma Flames and Oxy-Hydrogen Flames | T. B. Reed | J. Appl. Phys. <u>34</u> , 2266 (1963) |
| 2050
R | Magnetoelastic Sensitivities in Evaporated and Electrodeposited Permalloy Films | I. W. Wolf §
T. S. Crowther | J. Appl. Phys. <u>34</u> , 1205 (1963) |
| 2052
R | Criterion for Continuous Amplitude Oscillations of Optical Masers | J. I. Kaplan | J. Appl. Phys. <u>34</u> , 3411 (1963) |
| 2053
R | Radar Observations of Venus, 1961 and 1959 | W. B. Smith | Astron. J. <u>68</u> , 15 (1963) |
| 2055
R | Neurophysiological Investigations of the Bat, <u>Myotis lucifugus</u> , Stimulated by Frequency Modulated Acoustical Pulse | A. D. Grinnell §
J. J. G. McCue | Nature <u>198</u> , 453 (1963) |
| 2056
R | Growing Helical Density Waves in Semiconductor Plasmas | C. E. Hurwitz
A. L. McWhorter | Phys. Rev. Letters <u>10</u> , 20 (1963) |

Journal Articles

JA No.

- | | | | |
|------------|---|--|--|
| 2057
R | On the Minimum <u>a priori</u> Information Necessary to Construct Adaptive Filters for Stationary Time Series | H. J. Kushner | Trans. IEEE, PTGAC <u>AC-8</u> , 179 (1963) |
| 2059
R | Signal and Context Components of Word-Recognition Behavior | A. N. Stowe
W. P. Harris
D. B. Hampton § | J. Acoust. Soc. Am. <u>35</u> , 639 (1963) |
| 2060
R | Time-, Fuel-, and Energy-Optimal Control of Nonlinear Norm-Invariant Systems | M. Athans
P. L. Falb
R. T. Laocss § | Trans. IEEE, PTGAC <u>AC-8</u> , 196 (1963) |
| 2061A
R | Cryogenics for the Electronics Engineer | J. W. Meyer
A. M. Rieh | Electronics <u>36</u> , No. 35, 29 (1963) |
| 2062
R | Second Harmonic Generation in Solids | P. L. Kelley | J. Phys. Chem. Solids <u>24</u> , 1113 (1963) |
| 2064
R | The Orthomatch Data Transmission System | B. G. Kuhn
K. H. Morey
W. B. Smith | Trans. IEEE, PTGSET <u>SET-9</u> , 63 (1963) |
| 2065 | New Light Sources | B. Lax | <u>McGraw-Hill Yearbook of Science and Technology</u> (1963) |
| 2066
R | Measurement of Internal Friction in Thin Films | G. P. Weiss
D. O. Smith | Rev. Sci. Instr. <u>34</u> , 522 (1963) |
| 2067
R | Theory of Galvano-Thermomagnetic Energy Conversion Devices. V. Devices Constructed from Anisotropic Materials | T. C. Harman
J. M. Honig
B. M. Tarmy | J. Appl. Phys. <u>34</u> , 2225 (1963) |
| 2068
R | Anomalous Thermoelectric Power as Evidence for Two Valence Bands in SnTe | R. F. Brebrick
A. J. Strauss | Phys. Rev. <u>131</u> , 104 (1963) |
| 2069
R | The Influence of Anisotropy Dispersion on Magnetic Properties of Ni-Fe Films | M. S. Cohen | J. Appl. Phys. <u>34</u> , 1841 (1963) |
| 2070
R | Instantaneous Spectra and Ambiguity Functions | M. J. Levin | Trans. IEEE, PTGIT <u>IT-10</u> , 95 (1964) |
| 2073
R | Equalization and Cancellation Theory of Binaural Masking-Level Differences | N. I. Durlach | J. Acoust. Soc. Am. <u>35</u> , 1206 (1963) |
| 2074
R | A Note on "Very Noisy" Channels | B. Reiffen | Inform. and Control <u>6</u> , 126 (1963) |
| 2075
R | On a Nonlinear Delay Equation | J. J. Levin
J. A. Noel § | J. Math. Anal. Appl. <u>8</u> , 31 (1964) |
| 2076
R | Optical Communications Employing Infrared Emitting Diodes and FM Techniques | E. J. Chatterton | Proc. IEEE (Correspondence) <u>51</u> , 612 (1963) |

Journal Articles

JA No.

- | | | | |
|------------|--|---|--|
| 2078
R | Interactions Between a Hyper-sonic Wave and a Following Hypersonic Projectile | R. E. Slattery
W. G. Clay
R. R. Stevens | AIAA J. <u>1</u> , 974 (1963) |
| 2079
R | A Low-Level Peak Holding Circuit Using an Operational Amplifier | K. H. Morey
K. E. Perry | Proc. IEEE (Correspondence) <u>51</u> , 953 (1963) |
| 2083
R | Matched Filter Approximation Errors | M. J. Levin | Trans. IEEE, PTGCS <u>CS-11</u> , 254 (1963) |
| 2084 | Encapsulating Precision Antennas in Plastic | C. A. Pappas
E. B. Murphy | Electronics <u>36</u> , No. 10, 68 (1963) |
| 2085A
R | Nernst and Seebeck Coefficients in Bismuth at High Magnetic Fields | T. C. Harman
J. M. Honig | Adv. Energy Conversion <u>3</u> , 525 (1963) |
| 2086
R | The Thermodynamic Activity of the Semiconductor | W. W. Harvey | J. Phys. Chem. Solids <u>24</u> , 701 (1963) |
| 2087
R | Geomagnetic Effects on the Frequency Spectrum of Incoherent Backscatter Observed at 425 Mcps at Trinidad | V. C. Pineo
D. P. Hynek
G. H. Millman § | J. Geophys. Res. <u>68</u> , 2695 (1963) |
| 2088
R | Adaptation to Displaced Vision: Visual, Motor, or Proprioceptive Change? | C. S. Harris § | Science <u>140</u> , 812 (1963) |
| 2089A
R | Galvano-Thermomagnetic Effects in Multi-Band Models | J. M. Honig
T. C. Harman | Adv. Energy Conversion <u>3</u> , 529 (1963) |
| 2090
R | Thermal Conduction in Liquid Helium II. II. Effects of Channel Geometry | C. E. Chase | Phys. Rev. <u>131</u> , 1898 (1963) |
| 2091
R | Quantitative Mass Spectrography of Solids | E. B. Owens
N. A. Giardino | Anal. Chem. <u>35</u> , 1172 (1963) |
| 2092 | Chemical Behavior of Semiconductors: Etching Characteristics | H. C. Gatos
M. C. Lavine | <u>Progress in Semiconductors</u> , Vol. 7 (Wiley, New York, 1963) |
| 2094
R | Preparation of Actual-Size Printed Wiring Layouts | E. A. Guditz | Trans. IEEE, PTGPEP <u>PEP-7</u> , 24 (1963) |
| 2096
R | Radar Astronomy | G. H. Pettengill | Trans. Am. Geophys. Un. <u>44</u> , (1963) |
| 2097
R | Liquid-Helium Temperature Regulator | C. Blake
C. E. Chase | Rev. Sci. Instr. <u>34</u> , 984 (1963) |
| 2098
R | Small Phase-Shift Vacuum Can for Low Temperature ac Susceptibility Measurements | M. Strongin
E. Maxwell | Rev. Sci. Instr. <u>34</u> , 590 (1963) |

Journal Articles

JA No.

2099 R	Relativistic Potential Scattering	R. T. Prosser	J. Math. Phys. <u>4</u> , 1048 (1963)
2100 R	Exchange Energy of an Elec- tron Gas in a Periodic Potential	L. Eyges	Phys. Rev. <u>130</u> , 2218 (1963)
2101 R	The Influence of Terrain Shielding on Radio Wave Propagation at 8000 Mc	W. E. Morrow D. Karp R. V. Locke, Jr. W. C. Provencher	Proc. IEEE (Correspondence) <u>51</u> , 955 (1963)
2102 R	Modulated Infrared Diode Spans 30 Miles	R. J. Keyes	Electronics <u>36</u> , No. 14, 38 (1963)
2103 R	Filamentary Structure in Superconductors	E. Maxwell M. Strongin	Phys. Rev. Letters <u>10</u> , 212 (1963)
2104	Field Experiments Pertaining to Hypersonic Wakes and Trails	S. Edelberg	Accepted AIAA J.
2105 R	Error Statistics and Coding for Digital Data Transmission over Telephone and Teletype Circuits	A. B. Fontaine	Proc. IEEE (Correspondence) <u>51</u> , 474 (1963)
2106 R	A Lower Bound on Stability in Phase-Locked Loops	H. L. VanTrees	Inform. and Control <u>6</u> , 195 (1963)
2108 R	A Proposed UHF Transistor Using an Electroluminescent Emitter and a Collector- Base Heterojunction	A. G. Foyt	Proc. IEEE (Correspondence) <u>51</u> , 853 (1963)
2109 R	The Resistance of Bats to Jamming	D. R. Griffin § J. J. G. McCue A. D. Grinnell §	J. Exptl. Zoology <u>152</u> , 229 (1963)
2111 R	Prototypes for Use in Broad- banding Reflection Amplifiers	W. J. Getsinger	Trans. IEEE, PTGMMT <u>MTT-11</u> , 486 (1963)
2112	Directed Heating with Atoms, Electrons and Photons	T. B. Reed	ASM Technical Report No. NY9.1.62 (Natl. Metal Cong., New York, 1962)
2113 R	Application of Sequential Decoding to High-Rate Data Communication on a Tele- phone Line	I. L. Lebow P. G. McHugh A. C. Parker P. Rosen J. M. Wozencraft §	Trans. IEEE, PTGIT <u>IT-9</u> , 124 (1963)
2115 R	Acoustical Control of Airborne Interceptions by Bats	F. A. Webster §	Proc. Intl. Cong. on Technology and Blindness, Vol. 1, New York, June 1962
2116 R	The Reaction of Rare Earth Oxides with a High Tempera- ture Form of Rhodium (III) Oxide	A. Wold R. J. Arnott W. Croft	J. Inorg. Chem. <u>2</u> , 972 (1963)

Journal Articles

JA No.

- | | | | |
|------------|---|---|--|
| 2117A
R | Electron Ordering Transitions in Several Chromium Spinel Systems | R. J. Arnott
A. Wold
D. B. Rogers | J. Phys. Chem. Solids <u>25</u> , 161 (1964) |
| 2119
R | Observations of Ionospheric Movements by Incoherent Scattering | G. H. Millman §
V. C. Pineo
D. P. Hynek | J. Geophys. Res. <u>68</u> , 3323 (1963) |
| 2120
R | Segal's Quantization Procedure | R. T. Prosser | J. Math. Phys. <u>5</u> , 701 (1964) |
| 2122
R | Electron Paramagnetic Resonance of Cr^{3+} in SnO_2 | W. H. From | Phys. Rev. <u>131</u> , 961 (1963) |
| 2123
R | On the Dynamical Equations of Conditional Probability Density Functions, with Applications to Optimal Stochastic Control Theory | H. J. Kushner | J. Math. Anal. Appl. <u>8</u> , 332 (1964) |
| 2124
R | Equivalence and Antiequivalence of Irreducible Sets of Operators. I. Finite Dimensional Spaces | J. S. Lomont
H. E. Moses
K. Yu § | J. Math. Phys. <u>4</u> , 420 (1963) |
| 2126
R | On the Optimum Timing of Observations for Linear Control Systems with Unknown Initial State | H. J. Kushner | Trans. IEEE, PTGAC <u>AC-9</u> , 144 (1964) |
| 2128
R | Effects of Sunlight Pressure on Air Density Determinations Involving Cylindrical Satellites | I. I. Shapiro | J. Geophys. Res. <u>68</u> , 5349 (1963) |
| 2129
R | Negative Anisotropy in Nickel-Iron Films | D. O. Smith | Appl. Phys. Letters <u>2</u> , 191 (1963) |
| 2130A
R | Scattering of Electromagnetic Waves from Dielectric Coated Conducting Spheres | J. Rheinstein | Trans. IEEE, PTGAP <u>AP-12</u> , 334 (1964) |
| 2131
R | Evidence for the Role of Donor States in GaAs Electroluminescence | F. L. Galeener §
G. B. Wright
W. E. Krag
T. M. Quist
H. J. Zeiger | Phys. Rev. Letters <u>10</u> , 472 (1963) |
| 2133
R | Cleaning Vacuum Systems by Flushing | F. T. Worrell | Vacuum <u>13</u> , 309 (1963) |
| 2134 | Infinite Dimensional Control Problems. I. On the Closure of the Set of Attainable States for Linear Systems | P. L. Falb | Accepted J. Math. Anal. Appl. |
| 2136 | Compounds with the B31 Structure. II. Magnetic Properties of MnP | E. E. Huber, Jr.
D. H. Ridgley | Accepted Phys. Rev. |

Journal Articles

JA No.

- | | | | |
|------------|---|--|---|
| 2137
R | The Use of CO-CO ₂ Atmospheres for the Preparation and Free Energy Determinations of Several Oxide Systems | W. Kunnmann
D. B. Rogers
A. Wold | J. Phys. Chem. Solids <u>24</u> , 1535 (1963) |
| 2138
R | Quantum Theory of Kinetic Equations for Electrons in Phonon Fields | P. N. Argyres | Phys. Rev. <u>132</u> , 1527 (1963) |
| 2139 | Maser Action in InAs Diodes | I. Melngailis | Appl. Phys. Letters <u>2</u> , 176 (1963) |
| 2140
R | Recall as a Search Process | D. B. Yntema
F. P. Trask | J. Verb. Learning and Verb. Behav. <u>2</u> , 65 (1963) |
| 2141
R | Second-Order Exchange Interactions from Spin Wave Resonance | R. Weber
P. E. Tannenwald | J. Phys. Chem. Solids <u>24</u> , 1357 (1963) |
| 2142
R | Fast AGC Amplifier Locks Monopulse Radar on Target | W. W. Smith | Electronics <u>36</u> , No. 39, 34 (1963) |
| 2143A
R | Optical Spectra of Several d ¹ -Electron Systems | J. R. O'Connor
J. H. Chen § | J. Phys. Chem. Solids <u>24</u> , 1382 (1963) |
| 2144
R | Early Synchrotron Radiation Resulting from the July 9 High-Altitude Nuclear Detonation | M. Balser
J. H. Pannell | J. Geophys. Res. <u>68</u> , 4119 (1963) |
| 2145
R | Time-Optimal Control for a Class of Nonlinear Systems | M. Athans
P. L. Falb | Trans. IEEE, PTGAC <u>AC-8</u> , 379 (1963) |
| 2147
R | The Assignment of Wave Functions to Energy Densities and Probability Densities | J. S. Lomont
H. E. Moses | Nuovo Cimento <u>30</u> , 1291 (1963) |
| 2148
R | A Maximum Principle for Stochastic Control Systems | H. J. Kushner
F. C. Schweppe | J. Math. Anal. Appl. <u>8</u> , 287 (1964) |
| 2149
R | Magnetically Tunable cw InAs Diode Maser | I. Melngailis
R. H. Rediker | Appl. Phys. Letters <u>2</u> , 202 (1963) |
| 2151 | Parametric Upconverter Receiving Array | H. J. Pratt, Jr.
N. G. Damocogna § | Accepted Microwave J. |
| 2152
R | Semiconductor Lasers | B. Lax | Science <u>141</u> , 1247 (1963) |
| 2153
R | Microwave Ultrasonics | P. E. Tannenwald | Microwave J. <u>6</u> , No. 12, 61 (1963) |
| 2155
R | Properties of GaAs Alloy Diodes | R. H. Rediker
T. M. Quist | Solid-State Electron. <u>6</u> , 657 (1963) |
| 2156
R | A Free-Space Method of Measuring Radar Cross Section in the Laboratory | P. C. Fritsch | Proc. IEEE (Correspondence) <u>51</u> , 1271 (1963) |

Journal Articles

JA No.

2157 R	Some Interactions Between Vacuum Gauges	F. T. Worrell	Rev. Sci. Instr. <u>34</u> , 1352 (1963)
2158 R	Infrared and Visible Light Emission from Forward-Biased p-n Junctions	R. H. Rediker	Solid State Des. <u>4</u> , No. 8, 19 (1963)
2159	Parameter Estimation for Stochastic Processes	T. S. Pitcher	Accepted Acta Math.
2161 R	High-Power Low-Density Induction Plasmas	T. B. Reed	J. Appl. Phys. <u>34</u> , 3146 (1963)
2162 R	Measurement of Thermoelectric Materials and Devices	T. C. Harman	Semiconductor Prod. <u>6</u> , No. 9, 13 (1963)
2163 R	Nernst-Ettingshausen (Transverse) Energy Conversion	T. C. Harman J. M. Honig	Semiconductor Prod. <u>6</u> , No. 7, 19 (1963)
2165	VLF and LF Fields Propagating Near and Into a Rough Sea	R. M. Lerner J. Max	J. Research Natl. Bur. Standards
2166A R	Searching for Ten Targets Simultaneously	U. Feisser R. Novick § R. Lazar §	Percept. and Motor Skills <u>17</u> , (1963)
2167 R	Electromagnetic Theory of the Semiconductor Junction Laser	A. L. McWhorter	Solid-State Electron. <u>6</u> , 417 (1963)
2168 R	New Method for Investigating Micrometeoroid Fluxes	I. I. Shapiro	J. Geophys. Res. <u>68</u> , 4697 (1963)
2169	An Iterative Procedure for Computing Time-Optimal Controls	H. K. Knudsen	Trans. IEEE, PTGAC <u>AC-9</u> , 23 (1964)
2170 R	Complex AC Susceptibility of Some Superconducting Alloys	M. Strongin E. Maxwell	Phys. Letters <u>6</u> , 49 (1963)
2171 R	Units in Vacuum Measurements	F. T. Worrell	Nature <u>199</u> , 476 (1963)
2173 R	Comparison of Line and Square Source Near Fields	L. J. Rieardi R. C. Hansen §	Trans. IEEE, PTGAP <u>AP-11</u> , 711 (1963)
2175 R	Orbital Lifetime of the West Ford Dipoles	H. M. Jones C. W. Perkins I. I. Shapiro	Science <u>140</u> , 1173 (1963)
2176 R	Instability in the Magnetron Gauge	F. T. Worrell	Rev. Sci. Instr. <u>34</u> , 1384 (1963)
2178A R	A Sensitive Threshold Circuit Using Positive and Negative Nonlinear Feedback	R. C. Johnston	Proc. IEEE (Correspondence) <u>51</u> , 1788 (1963)
2179 R	Magnetic Susceptibility of Praseodymium Oxides	S. Kern	J. Chem. Phys. <u>40</u> , 208 (1964)

Journal Articles

JA No.

2180 R	An Optimum Demodulator for Poisson Processes: Photon Source Detectors	B. Reiffen H. Sherman	Proc. IEEE <u>51</u> , 1316 (1963)
2182 R	Radar Observations of Venus at 38 Mcps	J. C. James R. P. Ingalls	Astron. J. <u>69</u> , 19 (1964)
2183	Some Physical Properties of Nonlinear Elastic Suspensions as Analyzed by the Averaging Method of Ritz	E. Jozefowicz	Machine Design <u>35</u> , 169 (24 Oct. 1963)
2184 R	Semiconductor Diode Masers of $(\text{In}_x\text{Ga}_{1-x})\text{As}$	I. Melngailis A. J. Strauss R. H. Rediker	Proc. IEEE (Correspondence) <u>51</u> , 1154 (1963)
2185	Threaded Plated-Through Holes	E. A. Guditz	Electron. Packaging and Prod. <u>3</u> , No. 9, 55 (1963)
2188 R	Method for Fabricating Strain-Free Gallium Surfaces	H. H. Ehlers D. F. Kolesar	Rev. Sci. Instr. <u>34</u> , 1054 (1963)
2189 R	Partitioned IR Cell	R. Teoste	Infrared Phys. <u>4</u> , 43 (1964)
2190A R	Theory of the Infinite Stage Nernst-Ettingshausen Refrigerator	T. C. Harman	Adv. Energy Conversion <u>3</u> , 667 (1963)
2192 R	The Radar Cross Section of the Moon	J. V. Evans G. H. Pettengill	J. Geophys. Res. <u>68</u> , 5098 (1963)
2193 R	Theory of the Faraday Effect in Solids	L. M. Roth	Phys. Rev. <u>133</u> , A542 (1964)
2194	Magnetoreflexion Experiments in Graphite	M. S. Dresselhaus J. G. Mavroides	Carbon <u>1</u> , 263 (1964)
2197	Properties of InAs Diode Masers	I. Melngailis R. H. Rediker	Trans. IEEE, PTGED <u>ED-10</u> , 333 (1963)
2198 R	Index of Refraction of KDP	J. H. Dennis R. H. Kingston	Appl. Optics <u>2</u> , 1334 (1963)
2199A R	Visual Search	U. Neisser	Scientific American <u>210</u> , No. 6, 94 (1964)
2202 R	High Pressure Transition in InSb	R. E. Hanneman M. D. Banus H. C. Gatos	J. Phys. Chem. Solids <u>25</u> , 293 (1964)
2203A	The Variable-Drift Biased-Gap Klystron	I. Hefni	Proc. IEEE (Correspondence) <u>52</u> , 102 (1964)
2204 R	Band-Pass Filters with Linear Phase	R. M. Lerner	Proc. IEEE <u>52</u> , 249 (1964)

Journal Articles

JA No.

- | | | | |
|-----------|---|---|--|
| 2206
R | Cathode Particle Vapors in a Glow Discharge in Pulsed Diodes | F. T. Worrell
H. A. Pike | J. Appl. Phys. <u>34</u> , 3491 (1963) |
| 2207
R | Alignment of a Logarithmic Amplifier-Detector | R. E. Richardson | Rev. Sci. Instr. <u>34</u> , 1446 (1963) |
| 2209
R | Hazards in Pulse Sequential Circuits | P. E. Wood, Jr. | Trans. IEEE, PTGEC <u>EC-13</u> , 151 (1964) |
| 2214
R | Jahn-Teller Distortions Induced by Tetrahedral-Site Fe^{2+} Ions | J. B. Goodenough | J. Phys. Chem. Solids <u>25</u> , 151 (1964) |
| 2216
R | The Dimension of the Support of a Random Distribution Function | J. R. Kinney
T. S. Pitcher | Bull. Am. Math. Soc. <u>70</u> , 161 (1964) |
| 2218
R | A Faraday Rotation Measurement of the Ionospheric Perturbation Produced by a Burning Rocket | M. L. Stone
L. E. Bird
M. Balser | J. Geophys. Res. <u>69</u> , 971 (1964) |
| 2219
R | Preparation and Properties of Sodium and Potassium Molybdenum Bronze Crystals | A. Wold
W. Kunnmann
R. J. Arnott
A. Ferretti | Inorg. Chem. <u>3</u> , 545 (1964) |
| 2220
R | High-Pressure Phases of Some Compounds of Groups II-VI | A. N. Mariano
E. P. Warekois | Science <u>142</u> , 672 (1963) |
| 2223
R | Helium Temperature Ultra-violet Reflectometer for Use with Modified Spectrograph | W. J. Scouler | Appl. Optics <u>3</u> , 341 (1964) |
| 2224
R | Current Regulator for Ultra-violet Light Source | W. J. Scouler
E. D. Mills | Rev. Sci. Instr. <u>35</u> , 489 (1964) |
| 2225
R | Reflectivity of HgSe and HgTe from 4 to 12 eV at 12 and 300°K | W. J. Scouler
G. B. Wright | Phys. Rev. <u>133</u> , A736 (1964) |
| 2226
R | Optimum Power Division in Coherent Communication Systems | H. L. VanTrees | Trans. IEEE, PTGSET <u>SET-10</u> , 1 (1964) |
| 2227
R | Internal Second-Harmonic Generation in Gallium Arsenide Lasers | L. D. Malmstrom
J. J. Schlickman
R. H. Kingston | J. Appl. Phys. <u>35</u> , 248 (1964) |
| 2228
R | On Adding Independent Stochastic Processes | T. S. Pitcher | Ann. Math. Stat. <u>35</u> , 872 (1964) |
| 2231
R | A Technique for Achieving High Bit Packing Density on Magnetic Tape | J. E. Gillis | Trans. IEEE, PTGEC <u>EC-13</u> , 112 (1964) |
| 2232 | Basic Science at the Crossroads | B. Lax | Microwave J. <u>7</u> , No. 1, 16 (1964) |

Journal Articles

JA No.

- | | | | |
|------------|---|--|---|
| 2233 | The Analysis of the Abrupt Junction Varactor Doubler as a Function of Frequency | A. I. Grayzel | Accepted Trans. IEEE, PTGCT |
| 2234
R | Energy Gap Measurements by Tunneling Between Superconducting Films. I. Temperature Dependence | D. H. Douglass, Jr.
R. H. Meservey | Phys. Rev. <u>135</u> , A19 (1964) |
| 2235 | Energy Gap Measurements by Tunneling Between Superconducting Films. II. Magnetic Field Dependence | R. H. Meservey
D. H. Douglass, Jr. | Phys. Rev. <u>135</u> , A24 (1964) |
| 2237 | A Proposed Spacecraft-to-Earth Communications Link - The Unified Carrier Approach | W. F. Higgins
J. G. Barry
G. F. Dalrymple
J. C. Fielding
B. B. Goldstein | Accepted Trans. IEEE |
| 2238
R | The Dependence of the Upper Critical Field of Niobium on Temperature and Resistivity | E. S. Rosenblum
S. H. Autler
K. H. Goen § | Revs. Modern Phys. <u>36</u> , 77 (1964) |
| 2240
R | The Representations of the Inhomogeneous Lorentz Group in Terms of an Angular Momentum Basis | J. S. Lomont
H. E. Moses | J. Math. Phys. <u>5</u> , 294 (1964) |
| 2241A
R | Ceramic Double Cell for Crystal Growth by Fused Salt Electrolysis | W. Kunnmann
A. Ferretti | Rev. Sci. Instr. <u>35</u> , 465 (1964) |
| 2243
R | High-Pressure Transitions in $A^{(III)}B^{(VI)}$ Compounds. I. Indium Telluride | M. D. Banus
R. E. Hanneman
M. Strongin
K. Goen § | Science <u>142</u> , 662 (1963) |
| 2245 | Performance of Coherent Detection Systems Using Decision-Directed Channel Measurement | J. G. Proakis
P. R. Drouilhet, Jr.
R. Price | Trans. IEEE, PTGCS <u>CS-12</u> , 54 (1964) |
| 2246
R | Infrared InSb Laser Diode in High Magnetic Fields | R. J. Phelan
A. R. Calawa
R. H. Rediker
R. J. Keyes
B. Lax | Appl. Phys. Letters <u>3</u> , 143 (1963) |
| 2247 | Semiconductor Lasers | B. Lax | Solid State Des. <u>4</u> , No. 11, 26 (1963) |
| 2249 | The Application of Semiconductor Optical Radiators to Space Communication | B. S. Goldstein
J. D. Welch | Accepted Trans. IEEE |
| 2250 | An Acquirable Code | D. Gorenstein §
E. Weiss | Accepted Inform. and Control |

JA No.

- | | | | |
|------------|---|--|--|
| 2252
R | Observations of Venus, the Region of Taurus A, and the Moon at 8.5-Millimeter Wavelength | V. L. Lynn
M. L. Meeks
M. D. Sohigian | Astron. J. <u>69</u> , 65 (1964) |
| 2253A
R | The Nernst-Ettingshausen Energy Conversion Figure of Merit for Bi and Bi-4% Sb Alloys | T. C. Harman
J. M. Honig
S. Fischler
A. E. Paladino | Solid-State Electron. <u>7</u> , 505 (1964) |
| 2254
R | Refined Treatment of the Theory Pertaining to Operating Characteristics of Anisotropic Nernst-Ettingshausen Devices | J. M. Honig
B. M. Tarmy | J. Appl. Phys. <u>35</u> , 722 (1964) |
| 2255 | Near-Field Characteristics of a Linear Array | L. J. Ricardi | Accepted Microwave J. |
| 2258 | The Laser - A Long Range Future | B. Lax | Solid State Des. <u>4</u> , No. 11 (1963) |
| 2260
R | Bulk Solution of Ginzburg-Landau Equations for Type II Superconductor: Upper Critical Field Region | W. H. Kleiner
L. M. Roth
S. H. Autler | Phys. Rev. <u>133</u> , A1226 (1964) |
| 2261 | Parametric Analysis of Jammed Active Satellite Links | B. Reiffen
H. Sherman | Trans. IEEE, PTGCS <u>CS-12</u> , 102 (1964) |
| 2262
R | Radar Observations of the Moon at a Wavelength of 8.6 Millimeters | V. L. Lynn
M. D. Sohigian
E. A. Crocker | J. Geophys. Res. <u>69</u> , 781 (1964) |
| 2264
R | Two-Step Raman Scattering in Nitrobenzene | H. J. Zeiger
P. E. Tanncnwald
S. Kern
R. Herendcen | Phys. Rev. Letters <u>11</u> , 419 (1963) |
| 2265
R | Superconductivity in the High-Pressure InSb-Beta-Sn System | S. D. Nye
M. D. Banus
H. C. Gatos | J. Appl. Phys. <u>35</u> , 1361 (1964) |
| 2266
R | The Determination of Distance by Echolocating Bats | D. A. Cahlander
J. J. G. McCuc
F. A. Webster § | Nature <u>201</u> , 544 (1964) |
| 2268
R | Galvanomagnetic Effects in n-Type Germanium | W. E. Krag
M. C. Brown | Phys. Rev. <u>134</u> , A779 (1964) |
| 2270
R | Partial Pressures in Equilibrium with Group IV Tellurides. I. Optical Absorption Method and Results for PbTe | R. F. Brebrick
A. J. Strauss | J. Chem. Phys. <u>40</u> , 3230 (1964) |
| 2271 | Classical Ground State Spin Configurations in the Corundum Lattice | N. Menyuk
K. Dwight | Accepted J. Phys. Chem. Solids |

Journal Articles

JA No.

- | | | | |
|-----------|--|---|--|
| 2272 | A Cluster Method for Finding Minimum Energy Spin States | D. H. Lyons
T. A. Kaplan | Accepted J. Phys. Chem. Solids |
| 2273
R | A Direct Constructive Proof of the Criterion for Complete Controllability of Time-Invariant Linear Systems | P. L. Falb
M. Athans | Trans. IEEE, PTGAC <u>AC-9</u> , 189 (1964) |
| 2274
R | Report on Progress in Information Theory in the U.S.A., 1960-1963: Communication and Radar, Section A, General | R. Price
G. L. Turin | Trans. IEEE, PTGIT <u>IT-9</u> , 240 (1963) |
| 2275
R | High-Pressure Phase Transition in Tin Telluride | J. A. Kafalas
A. N. Mariano | Science <u>143</u> , 952 (1964) |
| 2276
R | Ultrasonic Measurements in Normal and Superconducting Niobium | R. Weber | Phys. Rev. <u>133</u> , A1487 (1964) |
| 2277 | Theory of Spin Resonance and Relaxation | P. N. Argyres
P. L. Kelley | Phys. Rev. <u>134</u> , A98 (1964) |
| 2280
R | Tunable Lasers | R. H. Rediker | Electron. Design <u>12</u> , No. 1, 47 (1964) |
| 2282
R | Cascade Capture of Electrons by Ionized Impurities | D. R. Hamann
A. L. McWhorter | Phys. Rev. <u>134</u> , A250 (1964) |
| 2283
R | Noise Measurements on He-Ne Laser Oscillators | J. A. Bellisio §
C. Freed
H. A. Haus § | Appl. Phys. Letters <u>4</u> , 5 (1964) |
| 2285 | Partial Pressures in Equilibrium with Group IV Tellurides. II. Tin Telluride | R. F. Brebrick
A. J. Strauss | J. Chem. Phys. <u>41</u> , 197 (1964) |
| 2286 | A Portable Receiver for Ultrasonic Waves in Air | J. J. G. McCue
A. Bertolini | Accepted Trans. IEEE, PTGSU |
| 2288
R | Radio Observations of OH in the Interstellar Medium | S. Weinreb
A. H. Barrett §
M. L. Meeks
J. C. Henry | Nature <u>200</u> , 829 (1963) |
| 2290
R | Magnetic Tuning of CW InSb Diode Laser | R. J. Phelan
R. H. Rediker | Proc. IEEE (Correspondence) <u>52</u> , 91 (1964) |
| 2291
R | A New Method of Measuring Small Radar Cross Sections by Digital Vector-Field Subtraction | P. C. Fritsch
F. E. Heart | Proc. IEEE (Correspondence) <u>52</u> , 628 (1964) |
| 2292 | Estimation of a System Pulse Transfer Function in the Presence of Noise | M. J. Levin | Accepted Trans. IEEE, PTGAC |

JA No.

- | | | | |
|-------------|--|---|--|
| 2293
R | Growing Helical Density Waves in Semiconductor Plasmas | C. E. Hurwitz
A. L. McWhorter | Phys. Rev. <u>134</u> , A1033 (1964) |
| 2294
R | Semiconductor Lasers | T. M. Quist | Intl. Sci. and Tech. No. 26, 80 (1964) |
| 2295 | Interface-Alloy Epitaxial Heterojunctions | R. H. Rediker
S. Stopek
J. H. R. Ward | Accepted Solid-State Electron. |
| 2296
R | Growth of $(\text{Ga}_x\text{In}_{1-x})\text{As}$ Single Crystals by Vapor Phase Reaction | R. C. Sirrine | J. Electrochem. Soc. <u>111</u> , 750 (1964) |
| 2297
R | Signal Design for Dispersive Channels | R. S. Kennedy
I. L. Lebow | IEEE Spectrum <u>1</u> , No. 3, 231 (1964) |
| 2299
R | Ionospheric Temperatures During the Launch of NASA Rocket 8.14 on July 2, 1963 | J. V. Evans | J. Geophys. Res. <u>69</u> , 1436 (1964) |
| 2300 | Radar Evidence of Solar Wind | J. H. Chisholm
J. C. James | Accepted Astrophys. J. |
| 2302
R | Injection Luminescent Pumping of $\text{CaF}_2:\text{U}^{3+}$ with GaAs Diode Lasers | R. J. Keyes
T. M. Quist | Appl. Phys. Letters <u>4</u> , 50 (1964) |
| 2303
R | 2000-A Pulse Generator | N. A. Sullivan | Rev. Sci. Instr. <u>35</u> , 639 (1964) |
| 2304
R | On Array Element Impedance Variation with Spacing | J. L. Allen | Trans. IEEE, PTGAP <u>AP-12</u> , 371 (1964) |
| 2306
R | Interferometric Phase Shift Technique for Measuring Short Fluorescent Lifetimes | R. J. Carbone
P. R. Longaker | Appl. Phys. Letters <u>4</u> , 32 (1964) |
| 2307
R | Impurity States in Semiconducting Masers | H. J. Zeiger | J. Appl. Phys. <u>35</u> , 1657 (1964) |
| 2310 | The Relation of the Initial Costate to the Cost Surface in Optimal Systems | H. K. Knudsen
M. Athans | Accepted Trans. IEEE, PTGAC |
| 2312
R | A Theory of Thermoluminescence of Fluorite ($\text{CaF}_2:\text{Y}$). Recombination from Highly Associated Electron-Hole Pairs | J. R. O'Connor | Appl. Phys. Letters <u>4</u> , 126 (1964) |
| 2316
R | Generalizations of the Jost Functions | H. E. Moses | J. Math. Phys. <u>5</u> , 833 (1964) |
| 2317-1
R | The Lincoln Laboratory West Ford Program - An Historical Perspective | C. F. J. Overhage
W. H. Radford | Proc. IEEE <u>52</u> , 452 (1964) |

Journal Articles

JA No.

2317-2 R	The West Ford Experiment – An Introduction to This Issue	W. E. Morrow, Jr. T. F. Rogers	Proc. IEEE <u>52</u> , 461 (1964)
2317-3 R	Orbital Properties of the West Ford Dipole Belt	I. I. Shapiro H. M. Jones C. W. Perkins	Proc. IEEE <u>52</u> , 469 (1964)
2317-4 R	Measured Physical Character- istics of the West Ford Belt	F. E. Heart D. Karp A. A. Mathiasen F. Nagy, Jr. W. R. Crowther W. B. Smith	Proc. IEEE <u>52</u> , 519 (1964)
2317-5 R	RF Characteristics of Thin Dipoles	C. L. Mack, Jr. B. Reiffen	Proc. IEEE <u>52</u> , 533 (1964)
2317-6 R	The West Ford Belt as a Communications Medium	I. L. Lebow P. R. Drouilhet, Jr. N. L. Daggett J. N. Harris F. Nagy, Jr.	Proc. IEEE <u>52</u> , 543 (1964)
2317-7 R	Effects of the West Ford Belt on Astronomical Observations	D. C. MacLellan W. E. Morrow, Jr. I. I. Shapiro	Proc. IEEE <u>52</u> , 564 (1964)
2317-8 R	The West Ford Payload	P. Waldron D. C. MacLellan M. C. Crocker	Proc. IEEE <u>52</u> , 571 (1964)
2317-9 R	West Ford Radar and Micro- wave Equipment	B. E. Nichols D. Karp	Proc. IEEE <u>52</u> , 576 (1964)
2317-10 R	West Ford Antenna and Feed System	B. F. LaPage E. W. Blaisdell L. J. Rieardi	Proc. IEEE <u>52</u> , 589 (1964)
2317-11 R	The Antenna Pointing System for West Ford	F. E. Heart A. A. Mathiasen	Proc. IEEE <u>52</u> , 599 (1964)
2323	A Note on the Equivalence of Certain Realizations of Boson Annihilation and Creation Op- erators Due to K. O. Friedrichs	H. E. Moses	Accepted Commun. Pure and Appl. Math.
2324	A Proposal for an Associative Memory Using Magnetic Films	J. I. Raffel T. S. Crowther	Accepted Trans. IEEE, PTGEC
2326 R	Oriented Single-Crystal Bis- muth Nernst-Ettingshausen Refrigerators	T. C. Harman J. M. Honig S. Fischler A. E. Paladino M. J. Button	Appl. Phys. Letters <u>4</u> , 77 (1964)
2328 R	Evidence That SnTe Is a Semi- conductor	J. A. Kafalas R. F. Brebriek A. J. Strauss	Appl. Phys. Letters <u>4</u> , 93 (1964)

JA No.

2334	Evaluation of Likelihood Functions for Gaussian Signals	F. C. Schweppe	Accepted Trans. IEEE, PTGIT
2333	A Note on Buzz-Hiss Detection	B. Gold	Accepted J. Acoust. Soc. Am.
2334 R	Bandpass Compressor: A New Type of Speech-Compression Device	B. Gold C. M. Rader	J. Acoust. Soc. Am. 36, 1215 (1964)
2337 R	Output Power from GaAs Lasers at Room Temperature	C. C. Gallagher * B. S. Goldstein P. C. Tandy * J. D. Welch	Proc. IEEE (Correspondence) <u>52</u> , 717 (1964)
2339 R	Microwave Modulation of a GaAs Injection Laser	B. S. Goldstein J. D. Welch	Proc. IEEE (Correspondence) <u>52</u> , 715 (1964)
2346	Some Non-Central F-Distributions Expressed in Closed Form	R. Price	Accepted Biometrika
2348 R	High-Resolution Microwave Spectra of H and OH Absorption Lines of Cassiopeia A	A. H. Barrett * M. L. Meeks S. Weinreb	Nature <u>202</u> , 475 (1964)
2349	Note on Quantum Effects in Radiometer Observations	T. Hagfors M. L. Meeks	Accepted Astron. J.
2351	The Frequency Dependence of the Powers and Impedances of Varactor Frequency Multipliers	A. I. Grayzel	Accepted Proc. IEEE
2355	The Bandwidth of the Abrupt Junction Varactor Frequency Doubler	A. I. Grayzel	Accepted Trans. IEEE, PTGCT
2357	Radar Echoes from the Sun	J. C. James	Accepted Trans. IEEE, PTGMIL
2359 R	Acoustic Plasma Waves in Semimetals	A. L. McWhorter W. G. May	IBM J. Research Develop. <u>8</u> , 285 (1964)
2362	On the Angular Resolution of Multiple Targets	J. R. Sklar F. C. Schweppe	Accepted Proc. IEEE
2365	Backscattering from an Undulating Surface with Applications to Radar Returns from the Moon	T. Hagfors	Accepted J. Geophys. Res.
2372 R	Lattice Energy Transfer and Stimulated Emission from $\text{CeF}_3:\text{Nd}^{+3}$	J. R. O'Connor W. A. Hargreaves	Appl. Phys. Letters <u>4</u> , 208 (1964)

MEETING SPEECHES*

JA No.

78	The M.I.T. Magnetic-Core Memory	W. N. Papian	Proc. Eastern Joint Computer Conf., Washington, Dec. 1953
317	Theory of Ferrites in Rectangular Waveguides	K. J. Button B. Lax	Proc. Symp. on Electromagnetic Wave Theory, Ypsilanti, June 1955
434 R	Communication through Noisy, Random-Multipath Channels	G. L. Turin	IRE Natl. Conv., Record (1956)
475 R	Conference Keynote Speech	N. H. Taylor	Proc. Western Joint Computer Conf., San Francisco, Feb. 1956
542	Theory of Magneto-Band Effect and Cyclotron Resonance at Infrared Frequencies	B. Lax K. J. Button	Bull. Am. Phys. Soc. Ser. II, <u>1</u> , 299 (1956)
543	A Pulsed Magnetic Field System for Cyclotron Resonance and Magneto-Band Effects at Infrared Frequencies	S. Foner H. H. Kolm	Bull. Am. Phys. Soc. Ser. II, <u>1</u> , 298 (1956)
544	High-Speed, Sensitive Infrared Detector for Magneto-Band Effect and Cyclotron Resonance Measurements	R. J. Keyes S. Zwerdling	Bull. Am. Phys. Soc. Ser. II, <u>1</u> , 299 (1956)
545	Experiments on Magneto-Band Effect and Cyclotron Resonance at Infrared Frequencies	S. Zwerdling R. J. Keyes S. Foner H. H. Kolm H. Lipson D. Warschauer B. Lax W. Paul	Bull. Am. Phys. Soc. Ser. II, <u>1</u> , 299 (1956)
569	Long Time Work Function Changes Induced by Light and Electrostatic Fields	G. W. Pratt, Jr. H. H. Kolm	Proc. Conf. on Physics of Semiconductor Surfaces, Univ. of Pennsylvania, June 1956
570 R	1/f Noise and Germanium Surface Properties	A. L. McWhorter	Proc. Conf. on Physics of Semiconductor Surfaces, Univ. of Pennsylvania, June 1956
575	The Interaction of Oxygen with Clean Germanium Surfaces	P. H. Robinson M. Green J. A. Kafalas	Proc. Conf. on Physics of Semiconductor Surfaces, Univ. of Pennsylvania, June 1956

* Only Meeting Speeches published or accepted for publication are included.

Meeting Speeches

JA No.

602	Contributions to the Proceedings of the Conference on the Physics of Semiconductor Surfaces	R. H. Kingston W. H. Kleiner G. W. Pratt, Jr. H. H. Kolm S. H. Autler A. L. McWhorter	Proc. Conf. on Physics of Semiconductor Surfaces, Univ. of Pennsylvania, June 1956
611	The Production and Use of High Intensity Pulsed Magnetic Fields	S. Foner H. H. Kolm	Proc. Conf. on Magnetism and Magnetic Materials, Boston, Oct. 1956
636 R	Advances in Solid-State Electronics — Magnetics	P. E. Tannenwald	Proc. Natl. Electronics Conf., Chicago, Oct. 1956
659 R	TX-0, A Transistor Computer with a 256 by 256 Memory	J. L. Mitchell K. H. Olsen	Proc. Eastern Joint Computer Conf., New York, Dec. 1956
838 R	Magnetic Properties of Dilute Magnetic Alloys and of the Rare Earth Metals	G. W. Pratt, Jr.	J. Appl. Phys. <u>29</u> , 520 (1958)
850 R	Detection of Dislocation Tilts and Strains by X-Rays	L. Kaufman S. A. Kulin	Proc. AIME, Chicago, Nov. 1957
856 R	Constraint Principle in Ferromagnetic Domain Theory	L. Gold	J. Appl. Phys. <u>29</u> , 544 (1958)
857 R	Magnetization Processes in Heat-Treated Single Crystal Cobalt Ferrite	S. Foner J. O. Artman	J. Appl. Phys. <u>29</u> , 443 (1958)
860	Digital-Analog Function Generators	R. W. Hofheimer K. E. Perry	Proc. IRE Instrumentation Conf., Atlanta, Nov. 1957
861 R	Ferromagnetic Resonance in Ultra-Thin Films	M. H. Seavey, Jr. P. E. Tannenwald	J. Appl. Phys. <u>29</u> , 292 (1958)
863 R	Recent Advances in the Design of High Field DC Solenoid Magnets	H. H. Kolm	J. Appl. Phys. <u>29</u> , 489 (1958)
865 R	Steady-State and Pulse Measurement Techniques for Thin Magnetic Films in the VHF-UHF Range	D. O. Smith G. P. Weiss	J. Appl. Phys. <u>29</u> , 290 (1958)
866	Suggestion Concerning the Role of Wave-Function Symmetry in Transition Metals and Their Alloys	J. B. Goodenough	J. Appl. Phys. <u>29</u> , 513 (1958)
867	Some Ferrimagnetic Properties of the System $\text{Li}_x\text{Ni}_{1-x}\text{O}$	J. B. Goodenough D. G. Wickham W. J. Croft	J. Appl. Phys. <u>29</u> , 382 (1958)
868	Static and Dynamic Behavior of Thin Permalloy Films	D. O. Smith	J. Appl. Phys. <u>29</u> , 264 (1958)

JA No.

- | | | | |
|----------|--|---|---|
| 869 | Some Magnetic and Crystallographic Properties of the System $\text{LaMn}_{1-x}\text{Ni}_x\text{O}_{3+\lambda}$ | A. Wold
R. J. Arnott
J. B. Goodenough | J. Appl. Phys. <u>29</u> , 387 (1958) |
| 870
R | Domain-Wall Structure in Permalloy Films | E. E. Huber, Jr.
D. O. Smith
J. B. Goodenough | J. Appl. Phys. <u>29</u> , 294 (1958) |
| 871
R | Further Development of the Vibrating-Coil Magnetometer | K. Dwight
N. Menyuk
D. O. Smith | J. Appl. Phys. <u>29</u> , 491 (1958) |
| 878 | SAGE - A Data Processing System for Air Defense | R. R. Everett
C. A. Zraket
H. D. Benington § | Proc. Eastern Joint Computer Conf., Washington, Dec. 1957 |
| 879
R | Operation of the SAGE Duplex Computers | P. R. Vance
L. G. Dooley §
C. E. Diss § | Proc. Eastern Joint Computer Conf., Washington, Dec. 1957 |
| 910 | A Band Separation Filter for the 225-400 Mcps Band | A. I. Grayzel | IRE Natl. Conv. Record (1958) |
| 912 | Signals with Uniform Ambiguity Functions | R. M. Lerner | IRE Natl. Conv. Record (1958) |
| 913 | The Measurement of Delay-Line Transducer Resistance | J. J. G. McCue
J. A. Leavitt § | IRE Natl. Conv. Record (1958) |
| 914
R | Analysis of the Spectral Shape of Modulation Splatter | R. Price | IRE Natl. Conv. Record (1958) |
| 916 | Algebraic Decoding for the Binary Erasure Channel | M. A. Epstein | IRE Natl. Conv. Record (1958) |
| 933
R | Recent Developments on Solid State Masers | J. W. Meyer | Proc. Intl. Conf. on Solid State Physics in Electronics and Telecommunications, Brussels, June 1958 |
| 937 | Tutorial Session on Detection Theory and Its Applications: Communications Applications | W. B. Davenport, Jr. | IRE Natl. Conv. Record (1958) |
| 950
R | A Study of Sea Clutter Spectra | J. W. McGinn, Jr.
E. W. Pike | Proc. Symp. on Statistical Methods in Radio Wave Propagation, Univ. of California, June 1958 |
| 958
R | Oscillatory Magneto-Absorption of Radiation in Semiconductors | S. Zwerdling | Proc. Am. Optical Soc., Washington, Mar. 1958 |
| 994 | Resonance and Magneto-Absorption in Solids at Millimeter and Infrared Frequencies | B. Lax | Proc. Intl. Conf. on Solid State Physics in Electronics and Telecommunications, Brussels, June 1958 |

Meeting Speeches

JA No.

995	Low-Temperature Semiconducting Computing Elements	R. H. Rediker A. L. McWhorter	Proc. Intl. Conf. on Solid State Physics in Electronics and Telecommunications, Brussels, June 1958
1012A R	Magneto-Absorption Experiments in Semiconductors	S. Zwerdling	Proc. Intl. Conf. on Solid State Physics in Electronics and Telecommunications, Brussels, June 1958
1015 R	Liquid Helium Cryostat with an Integral Superconducting Resonator	E. Maxwell A. F. Schmidt §	Proc. Intl. Inst. of Refrigeration, Delft, June 1958
1033 R	Cross Modulation of DC Resistance by Microwave Cyclotron Resonance	H. J. Zeiger C. J. Rauch M. E. Behrndt	J. Phys. Chem. Solids <u>8</u> , 496 (1958)
1034 R	Quantum Magneto-Absorption Phenomena in Semiconductors	B. Lax L. M. Roth S. Zwerdling	J. Phys. Chem. Solids <u>8</u> , 311 (1958)
1035 R	The Direct and Indirect Transition Excitons in Germanium	S. Zwerdling L. M. Roth B. Lax	J. Phys. Chem. Solids <u>8</u> , 397 (1958)
1036 R	A Many-Body Treatment of Dielectric Screening for Impurity States and Excitons in Semiconductors	L. M. Roth G. W. Pratt, Jr.	J. Phys. Chem. Solids <u>8</u> , 47 (1958)
1039 R	A Computer-Integrated Rapid-Access Magnetic-Tape System with Fixed Address	R. L. Best T. C. Stockebrand	Proc. Western Joint Computer Conf., Los Angeles, May 1958
1049	Optical Information Handling with Thin Magnetic Films	L. Kleinrock	Proc. Natl. Electronics Conf., Chicago, Oct. 1958
1091	Radar Observation of Birds	R. E. Richardson J. M. Stacey H. M. Kohler F. R. Naka	Proc. Seventh Weather Radar Conf., Miami Beach, Nov. 1958
1104	Angular Diversity Reception at 2290 Mcps Over a 188-Mile Path	J. H. Chisholm J. F. Roche L. P. Rainville H. G. Root	Rec. IRE Symp. on Extended Range and Space Communications, George Washington University, Oct. 1958
1111 R	Anisotropy in Permalloy Films	D. O. Smith	J. Appl. Phys. <u>30</u> , 264S (1959)
1112 R	Properties of Permalloy Films Having a Magnetoelastic Easy Axis Normal to the Film	E. E. Huber, Jr. D. O. Smith	J. Appl. Phys. <u>30</u> , 267S (1959)
1113 R	Magnetic Properties of Nickel-Iron Ferrite	N. Menyuk K. Dwight	J. Appl. Phys. <u>30</u> , 36S (1959)

JA No.

1115 R	Internal Structure of Cross-Tie Walls in Thin Permalloy Films Through High Resolution Bitter Techniques	R. M. Moon	J. Appl. Phys. <u>30</u> , 82S (1959)
1116 R	Test of Spin-Wave Theory with Precision Magnetization Measurements	S. Foner E. D. Thompson	J. Appl. Phys. <u>30</u> , 229S (1959)
1119 R	The Logical Design of CG 24	G. P. Dinneen I. L. Lebow I. S. Reed	Proc. Eastern Joint Computer Conf., Philadelphia, Dec. 1958
1128 R	Earth Satellite Observations Made with the Millstone Hill Radar	G. H. Pettengill L. G. Kraft, Jr.	Avionics Research, AGARD No. 40, 125 (1958)
1139 R	Automatic Design of Logical Networks	T. C. Bartee	Proc. Western Joint Computer Conf., San Francisco, Mar. 1958
1148	Wind Regimes for Radome Design	J. M. Austin § S. L. Hensel, Jr.	Proc. Lincoln Laboratory Rigid Radome Symp., MIT, Sept. 1958
1151	‡ Stress Distribution and Jump Phenomena in Spherical Frameworks under Pressure Loading	J. F. Besseling §	Proc. Lincoln Laboratory Rigid Radome Symp., MIT, Sept. 1958
1160 R	A Dynamic Programming Approach to Adaptive Control Processes	M. Freimer	IRE Natl. Conv. Record (1959)
1161 R	The Probability Density of the Output of a Filter When the Input is a Random Telegraphic Signal	J. A. McFadden	IRE Natl. Conv. Record (1959)
1163 R	Measuring the Characteristics of Present-Day Ultrasonic Delay Lines	J. J. G. McCue M. Axelbank	IRE Natl. Conv. Record (1959)
1164 R	Operating Characteristics of a Thin Film Memory	J. I. Raffel	J. Appl. Phys. <u>30</u> , 60S (1959)
1174	Impulse Switching of Ferrites	R. E. McMahon	Proc. Solid State Circuits Conf., Philadelphia, Feb. 1959; Proc. Eastern Joint Computer Conf., Philadelphia, Dec. 1958
1180 R	Optical Absorption of CoO and MnO Above and Below the Néel Temperature	G. W. Pratt, Jr. R. Coelho §	Proc. Am. Phys. Soc., New York, Jan. 1959
1219 R	Millimeter Instrumentation for Solid State Research	G. S. Heller	Proc. Symp. on Millimeter Waves, Polytechnic Institute of Brooklyn, Mar. 1959

Meeting Speeches

JA No.

1301 R	Transistor Circuit Techniques for a Core Memory with 500 Millimicroseconds Cycle Time	V. J. Sferrino	Rec. IRE, WESCON Conv., San Francisco, Aug. 1959
1314	Self-Organizing Models for Learned Perception	B. G. Farley	Proc. Information Systems Branch Conf., Illinois Institute of Technology, May 1959
1317 R	An Error Correcting Encoder and Decoder for Phone Line Data	K. E. Perry	Rec. IRE, WESCON Conv., San Francisco, Aug. 1959
1324	A Communication System for a Small Interplanetary Vehicle	M. I. Skolnik L. Cartledge	Proc. IRE, PGSET Conv., San Francisco, Sept. 1959
1325 R	Properties of Thin Magnetic Films for Microwave Applications	P. E. Tannenwald	Rec. IRE, WESCON Conv., San Francisco, Aug. 1959
1326	Space-Charge Theory of Multicavity Klystrons	A. Bers § S. F. Catalano H. M. Jones	Rec. IRE-AIEE Conf. on Electron Tube Research, Univ. of Mexico, June 1959
1350	A Study of UHF Space Communications Through an Aurora Using the Moon as a Reflector	R. P. Ingalls J. C. James M. L. Stone	Ballistic Missiles and Space Technology <u>3</u> , 272 (1961)
1352A	Mechanical Design of 150-Foot Diameter Metal Space Frame Radome	L. P. Farnsworth T. F. King	Proc. ASME, Atlantic City, Nov. 1959
1375 R	Chemical Configuration of Germanium Surfaces in Aqueous Media	W. W. Harvey	J. Phys. Chem. Solids <u>14</u> , 82 (1960)
1380A R	Automatic Digital Data Error Recorder	E. J. Hofmann	Trans. IRE, PGI <u>I-10</u> , 27 (1961)
1384	Some Properties of Magnetic Films by Microwave Resonance	P. E. Tannenwald	Proc. Intl. Conf. on Structures and Properties of Thin Films, Lake George, Sept. 1959
1385	Etching and Inhibition of the {111} Surfaces of the III-V Intermetallic Compounds: InSb	H. C. Gatos M. C. Lavine	J. Phys. Chem. Solids <u>14</u> , 169 (1960)
1386	Some Structure-Sensitive Magnetic Properties of Permalloy Films	D. O. Smith	Proc. Intl. Conf. on Structures and Properties of Thin Films, Lake George, Sept. 1959
1391 R	The Oxidation of Intermetallic Compounds - III. The Room-Temperature Oxidation of $A^{III}B^V$ Compounds	A. J. Rosenberg	J. Phys. Chem. Solids <u>14</u> , 175 (1960)

JA No.

- | | | | |
|------------|--|--|--|
| 1392A
R | The Oxidation of Intermetallic Compounds: IV. The Sorption of Oxygen by InSb at 78°K | A. J. Rosenberg
A. A. Menna | <u>Reactivity of Solids</u> , J. H. deBoer, et al., Eds. (Elsevier, Amsterdam, 1960) |
| 1412A | Pulsed Field Millimeter Wave Maser | S. Foner
L. R. Momo
A. Mayer
R. A. Myers § | Proc. Quantum Electronics Conf., Bloomingburg, N. Y., Sept. 1959 |
| 1421
R | Initial Susceptibility Spectra of Permalloy Films | R. F. Soohoo | J. Appl. Phys. <u>31</u> , 218S (1960) |
| 1422
R | Galvanomagnetic Effects in Ferromagnetic Resonance | M. H. Seavey, Jr. | J. Appl. Phys. <u>31</u> , 216S (1960) |
| 1423A
R | The Millstone Radar in Satellite and Missile Tracking | J. S. Arthur
J. C. Henry
G. H. Pettengill
P. B. Sebring | Ballistic Missiles and Space Technology <u>3</u> , 84 (1961) |
| 1424
R | Direct Cation-Cation Interactions in Primarily Ionic Solids | J. B. Goodenough | J. Appl. Phys. <u>31</u> , 359S (1960) |
| 1425
R | Interpretation of the Magnetic and Crystallographic Properties of Several Iron, Nickel, and Iron-Nickel Nitrides | J. B. Goodenough
A. Wold
R. J. Arnott | J. Appl. Phys. <u>31</u> , 324S (1960) |
| 1426
R | Classical Theory of Spin Configurations in the Cubic Spinel | T. A. Kaplan | J. Appl. Phys. <u>31</u> , 364S (1960) |
| 1429
R | Magnetic Transitions in Ti_2O_3 and V_2O_3 | P. H. Carr
S. Foner | J. Appl. Phys. <u>31</u> , 344S (1960) |
| 1430
R | Low-Temperature X-Ray Diffraction Studies on Vanadium Sesquioxide | E. P. Warekois | J. Appl. Phys. <u>31</u> , 346S (1960) |
| 1433
R | Flux Reversal by Nonequilibrium Rotation in Magnetic Films | K. J. Harte | J. Appl. Phys. <u>31</u> , 283S (1960) |
| 1451 | Cyclotron Resonance and Impurity Levels in Semiconductors | B. Lax | Proc. Quantum Electronics Conf., Bloomingburg, N. Y., Sept. 1959 |
| 1472 | The Spin Wave Spectrum in Magnetic Fields | R. F. Soohoo | Bull. Am. Phys. Soc. <u>4</u> , 453 (1959) |
| 1478
R | Solid State Microwave Devices | R. H. Kingston | Nachrichtentechnische Fachberichte, Band 22 (1961) |
| 1486
R | Anisotropy and Inversion in Permalloy Films | D. O. Smith
E. E. Huber, Jr.
M. S. Cohen
G. P. Weiss | J. Appl. Phys. <u>31</u> , 295S (1960) |

Meeting Speeches

JA No.

1487	Investigations into the Origin of Anisotropy in Oblique-Incidence Films	M. S. Cohen E. E. Huber, Jr. G. P. Weiss D. O. Smith	J. Appl. Phys. <u>31</u> , 291S (1960)
1496	Thermal Conduction in Rotating Liquid Helium II	C. E. Chase	Bull. Am. Phys. Soc. <u>5</u> , 13 (1960)
1507	Application of Boolean Matrices to the Analysis of Flow Diagrams	R. T. Prosser	Proc. Eastern Joint Computer Conf., Boston, Dec. 1959
1518A	Activity in Networks of Neuron-Like Elements	B. G. Farley W. A. Clark	Proc. Fourth Symp. on Information Theory, London, Aug. 1960
1518B	Activity in Networks of Neuron-Like Elements	B. G. Farley W. A. Clark	Proc. IRE Natl. Aeronautics Elec. Conf., Wright-Patterson AFB, Dayton, May 1960
1530	Communication in Digital Systems	I. L. Lebow	<u>Information Theory</u> (Butterworths, London, 1961)
1544	Recognition of Sloppy, Hand-Printed Characters	W. Doyle	Proc. Western Joint Computer Conf., San Francisco, May 1960
1552	Use of Pivotal Microbalance Design for the Determination of Mass Changes	J. M. Honig	Proc. Conf. on Microbalance Techniques, Ft. Monmouth, Jan. 1960
1564	Critical Heat Currents in Rotating Liquid Helium II	C. E. Chase	Bull. Am. Phys. Soc. <u>5</u> , 291 (1960)
1584	Precision Speed Control of a High-Speed Camera	D. A. Cahlander	Proc. Fifth Intl. Cong. on High-Speed Photography, Washington, Oct. 1960

Note: Since 1960, Meeting Speeches are designated MS rather than JA.

MS No.

10A	Some Characteristics of Ionospheric Backscatter Observed at 440 Mc/s	V. C. Pineo L. G. Kraft H. W. Briscoe	J. Geophys. Res. <u>65</u> , 2629 (1960)
14	Minimum Energy Spin Configurations in the Spinel Structure	T. A. Kaplan K. Dwight N. Menyuk	Bull. Am. Phys. Soc. <u>5</u> , 460 (1960)
22	Magneto-Spectroscopy in Semiconductors	B. Lax	Proc. Intl. Conf. on Semiconductor Physics, Prague, Aug. 1960
24	Damaged Layers in the {111} Surfaces of the III-V Semiconductor Compounds	H. C. Gatos M. C. Lavine E. P. Warekois	Proc. Intl. Conf. on Semiconductor Physics, Prague, Aug. 1960

MS No.

25	Moon Relay Communication	W. H. Radford	IRE Intl. Conv., Record (1960)
26	Impact Ionization of Impurities in Compensated Germanium	A. L. McWhorter R. H. Rediker	Proc. Intl. Conf. on Semiconductor Physics, Prague, Aug. 1960
28	On Geodesics That Are Also Orbits	R. Hermann	Bull. Am. Math. Soc. <u>66</u> , 91 (1960)
32 R	Pattern Recognition with an Adaptive Network	L. G. Roberts	IRE Intl. Conv., Record (1960)
40	General Spin-Wave Dispersion Relations	R. F. Soohoo	Bull. Am. Phys. Soc. <u>5</u> , 356 (1960)
42 R	Reproducibility of Electro-deposited Thin Film Memory Arrays	I. W. Wolf§ T. S. Crowther	Proc. IRE Electronics Components Conf., Washington, May 1960
45 R	Magnetoplasma Effects in Solids	B. Lax	Trans. IRE, PGMTT <u>MTT-9</u> , 83 (1961)
49 R	Quantum Mechanical Three-Body Problem. II	L. J. Eyges	Phys. Rev. <u>121</u> , 1744 (1961)
52	Proposed Symbolology for Digital Systems	T. C. Bartee	Proc. AIEE Natl. Electronics Conf., Chicago, Oct. 1960
56 R	Some Results in the Measurement of Impulse Noise on Several Telephone Circuits	H. L. Yudkin	Proc. AIEE Natl. Electronics Conf., Chicago, Oct. 1960
58 R	Measured Error Distributions on the Bell A-1 Facility over Various Media	E. J. Hofmann	Proc. AIEE Natl. Electronics Conf., Chicago, Oct. 1960
59 R	The Testing of Digital Data Transmission Channels and Circuits	R. G. Enticknap	Proc. AIEE Natl. Electronics Conf., Chicago, Oct. 1960
60	The Design of Data Transmission Systems	R. G. Enticknap R. M. Lerner	Proc. AIEE Winter General Meeting, New York, 1961
61	Advanced Radar Information Evaluation System - ARIES	D. L. Lovenvirth W. F. Holst	<u>Ballistic Missile and Space Technology</u> , Vol. III, D. P. LeGalley, Ed. (Academic Press, New York, 1960)
66 R	Errors in Data Transmission Systems	R. G. Enticknap	Trans. IRE, PGCS CS-9, 15 (1961)
67 R	Modulation and Signal Selection for Digital Data Systems	R. M. Lerner	Proc. AIEE Natl. Electronics Conf., Chicago, Oct. 1960
69 R	A Helium ³ Refrigerator	C. J. Rauch	Proc. Cryogenic Eng. Conf., Boulder, Aug. 1960

Meeting Speeches

MS No.

78 R	The Effect of Channel Geometry and Rotation on the Critical Heat Current in Liquid Helium II	C. E. Chase	Proc. Seventh Intl. Conf. on Low Temperature Physics, Univ. of Toronto, Aug. 1960
82	Low-Temperature Devices	A. L. McWhorter	Trans. IRE, PGE E-3, 137 (1960)
84 R	Learning in Random Nets	M. Minsky O. G. Selfridge	Information Theory (Butterworths, London, 1961)
86 R	An Account of the Factors That Are Important in the Tracking of Space Vehicles by Means of Radar	W. W. Ward	Trans. IRE, PGSET Natl. Symp., Washington, Sept. 1960
86A R	Radar Tracking of Space Vehicles	W. W. Ward	NEREM Record, Boston (1960)
89 R	The Computer as a Pattern Generator for Perceptual Research	B. W. White	Behavioral Sci. 6, 252 (1961)
91 R	Distances and Ratios in Psychophysical Scaling	W. S. Torgerson	Acta Psychol. 19, 201 (1961)
94 R	Spin-Lattice Interaction for Electrons in Semiconductors	L. M. Roth	Proc. Intl. Conf. on Semiconductor Physics, Prague, Aug. 1960
106 R	Anisotropy in Permalloy Films Evaporated at Grazing Incidence	M. S. Cohen	J. Appl. Phys. Suppl. 32, 87S (1961)
112 R	Superconducting Resonant Cavities	E. Maxwell	Proc. Cryogenic Eng. Conf., Boulder, Aug. 1960
121 R	Excitation and Boundary Effects in Spin-Wave Resonance	R. F. Soohoo	J. Appl. Phys. Suppl. 32, 148S (1961)
124 R	Impulse Selection for Core Logic	R. H. Tancrell	J. Appl. Phys. Suppl. 32, 40S (1961)
126 R	Antiferromagnetic Resonance in $(\text{Cr}_2\text{O}_3)_{1-x} \cdot (\text{Al}_2\text{O}_3)$ Single Crystals	S. Foner	J. Appl. Phys. Suppl. 32, 63S (1961)
127 R	Annealing of Oblique-Incidence Permalloy Films	G. P. Weiss D. O. Smith	J. Appl. Phys. Suppl. 32, 85S (1961)
132 R	Anisotropy in Nickel-Iron Films	D. O. Smith	J. Appl. Phys. Suppl. 32, 705S (1961)
133 R	Classical Theory of the Ground Spin State in Spinel	T. A. Kaplan K. Dwight D. H. Lyons N. Menyuk	J. Appl. Phys. Suppl. 32, 135S (1961)
135 R	Areas for Research and Development in the Millimeter Wavelength Region	J. W. Meyer G. S. Heller	NEREM Record (1960)

Meeting Speeches

MS No.

141 R	Antiferromagnetic Materials for Millimeter and Sub-millimeter Devices	G. S. Heller J. J. Stickler J. B. Thaxter	J. Appl. Phys. Suppl. <u>32</u> , 307S (1961)
143 R	A Random Access Cryosar Memory	R. C. Johnston	NEREM Record (1960)
144A R	CW Millimeter Wavelength Maser	S. Foner L. R. Momo J. B. Thaxter G. S. Heller R. M. White	<u>Advances in Quantum Electronics</u> , J. R. Singer, Ed. (Columbia Univ. Press, New York, 1961)
159 R	A Sequential Detection System for the Processing of Radar Returns	A. A. Galvin	Proc. IRE <u>49</u> , 1417 (1961)
160 R	Radar System Performance in a Dense-Target Environment	E. N. Fowle E. J. Kelly, Jr. J. A. Sheehan	IRE Intl. Conv. Record (1961)
161 R	A Method of Designing Signals of Large Time-Bandwidth Product	E. L. Key E. N. Fowle R. D. Haggarty	IRE Intl. Conv. Record (1961)
162 R	Ultrasonic Instrumentation for Research on Bats	J. J. G. McCue	IRE Intl. Conv. Record (1961)
163 R	The Measurement of the Phenomena Associated with the Hypervelocity Re-entries Into the Atmosphere	G. F. Pippert	NEREM Record (1960)
170A	Stochastic Approximation and Its Application to Problems of Prediction and Control Synthesis	L. A. Gardner, Jr.	<u>International Symposium on Non-linear Differential Equations and Nonlinear Mechanics</u> (Academic Press, New York, 1963)
172 R	Radar Measurements of the Lunar Surface	G. H. Pettengill J. C. Henry	Proc. Lunar Symp. of Intl. Astronomical Union, Leningrad, Dec. 1960; <u>Advances in the Astronautical Sciences</u> , Vol. 8 (Plenum Press, New York, 1963)
173	The Design of an "Error-Free" Data Transmission System for Telephone Circuits	B. Reiffen W. G. Schmidt H. L. Yudkin	Proc. AIEE Winter General Meeting, New York (1961)
178	An Operational UHF Reactance Amplifier	A. Parsons E. McCurley C. Blake	Proc. Symp. on Low Noise Receivers, Lincoln Laboratory MIT, Oct. 1960
179	Recent Experiences with an X-Band Maser Receiver and an S-Band Parametric Amplifier Radar Receiver	F. J. Dominick	Proc. Symp. on Low Noise Receivers, Lincoln Laboratory, MIT, Oct. 1960

Meeting Speeches

MS No.

180 R	Perturbation Theory of the Reciprocal Ferrite Phase Shifter	K. J. Button B. Lax	Proc. IEE <u>109B</u> , Suppl. 21, 56 (1962)
181 R	Stoichiometry of Copper Bonding Using Copper Oxide	E. B. Murphy T. P. Turnbull	Proc. Am. Electroplaters' Soc., Newark (1961)
199	Nonquadratic Conduction Band in HgSe	G. B. Wright A. J. Strauss T. C. Harman	Bull. Am. Phys. Soc. <u>6</u> , 155 (1961)
200	Electrical Properties of HgSe and HgSe-HgTe Alloys	A. J. Strauss T. C. Harman	Bull. Am. Phys. Soc. <u>6</u> , 156 (1961)
201	Overlapping Bands in HgSe and HgSe-HgTe Alloys	T. C. Harman A. J. Strauss	Bull. Am. Phys. Soc. <u>6</u> , 156 (1961)
202	Ferro- and Antiferromagnetism for Spin I	G. F. Dresselhaus	Bull. Am. Phys. Soc. <u>6</u> , 124 (1961)
203	Observation of Quantum Effects in Germanium and Silicon at Millimeter Wavelengths	J. J. Stickler C. J. Rauch H. J. Zeiger G. S. Heller	Bull. Am. Phys. Soc. <u>6</u> , 115 (1961)
204	Interband Transitions in Metals	M. S. Dresselhaus G. F. Dresselhaus	Bull. Am. Phys. Soc. <u>6</u> , 146 (1961)
205	Simple Theory of Tunneling and Its Dependence on a Magnetic Field	P. N. Argyres B. Lax	Bull. Am. Phys. Soc. <u>6</u> , 105 (1961)
208	One-Electron Energy Band Method	L. J. Eyges	Bull. Am. Phys. Soc. <u>6</u> , 108 (1961)
209	High-Resolution Oscillatory Magneto-Absorption Measurements of InSb at Liquid-Helium Temperature	S. Zwerdling J. P. Theriault	Bull. Am. Phys. Soc. <u>6</u> , 147 (1961)
210	Perturbation Theory of Cavities	R. F. Soohoo	Bull. Am. Phys. Soc. <u>6</u> , 125 (1961)
211	Antiferromagnetic Ground State	L. M. Roth	Bull. Am. Phys. Soc. <u>6</u> , 124 (1961)
217 R	Cyclotron Resonance Maser	B. Lax	<u>Advances in Quantum Electronics</u> , J. R. Singer, Ed. (Columbia Univ. Press, New York, 1961)
227 R	Spin-Orbit vs Jahn Teller Deformation in Chromium Spinels	J. B. Goodenough	J. Phys. Soc. Japan <u>17</u> , Suppl. B-4, 185 (1962)
229	Design of a Twelve Horn Monopulse Feed	L. J. Ricardi L. Niro	Rec. Seventh Annual Radar Symp., Univ. of Michigan, May 1961
237 R	Spin Wave Resonance in Magnetic Films	P. E. Tannenwald	J. Phys. Soc. Japan <u>17</u> , Suppl. B-4, 592 (1962)

Meeting Speeches

MS No.

238 R	Positive and Negative Anisotropy in Nickel-Iron Films	D. O. Smith	J. Phys. Soc. Japan <u>17</u> , Suppl. B-1, 550 (1962)
240	Deep Space Probes at Millimeter Wavelengths	J. W. Meyer V. L. Lynn C. M. Steinmetz E. A. Crocker	Rec. Seventh Annual Radar Symp., Univ. of Michigan, May 1961 H-417, M \$1.50, P \$6.15
241 R	Mass Spectrographic Evidence for Deviations from Stoichiometry in GaSb	E. B. Owens A. J. Strauss	Proc. Conf. on Ultrapurification of Semiconductor Materials, Boston, Apr. 1961
242 R	Technical Information Flow Patterns	M. M. Kessler	Proc. Western Joint Computer Conf., Los Angeles, May 1961
249	Baseball: An Automatic Question-Answerer	B. F. Green, Jr. A. K. Wolf C. Chomsky K. Laughery	Proc. Western Joint Computer Conf., Los Angeles, May 1961
253A R	Experimental Studies of the F Region Using the Incoherent Backscatter Technique at Frequencies Around 400 Mc/s	V. C. Pineo L. G. Kraft H. W. Briseoe D. P. Hynes	<u>Electron Density Profiles</u> (Pergamon Press, New York, 1962)
257 R	High Field Magnetic Resonance Experiments	S. Foner	J. Phys. Soc. Japan <u>17</u> , Suppl. B-1, 424 (1962)
267 R	Solar Radiation Pressure Effects, Gas Leakage Rates, and Air Densities Inferred from the Orbit of Echo I	H. M. Jones I. I. Shapiro P. E. Zadunaisky §	<u>Space Research II</u> (Proc. Second Intl. Space Science Symp.), H. C. Van de Hulst, <u>et al.</u> , Eds. (North-Holland, Amsterdam, 1961)
268 R	Band Structure of HgSe and HgSe-HgTe Alloys	T. C. Harman A. J. Strauss	J. Appl. Phys. <u>32S</u> , 2265 (1961)
269 R	Magnetoreflexion Experiments in Intermetallics	G. B. Wright B. Lax	J. Appl. Phys. <u>32S</u> , 2113 (1961)
270 R	Interband Faraday Rotation in III-V Compounds	B. Lax Y. Nishina §	J. Appl. Phys. <u>32S</u> , 2128 (1961)
272 R	Infrared and Dielectric Analysis of Structural Polyurethane Foams	E. B. Murphy W. A. O'Neil	SPE J. <u>18</u> , 47 (1962)
285 R	Report from a Symposium on the Application of Low Noise Receivers to Radar and Allied Equipment	J. W. Meyer	<u>Low Noise Electronics</u> (Proc. Fifth AGARD Avionics Panel Conf.) (Pergamon Press, London, 1962)
292 R	Some Results of Computer Simulation of Neuron-Like Nets	B. G. Farley	Proc. Fed. of Amer. Soes. for Exptl. Biology, Apr. 1961
301 R	Magnetic Field Dependence of the Superconducting Energy Gap in Ginzburg-Landau Theory with Application to Al	D. H. Douglass, Jr.	IBM J. Research Develop. <u>6</u> , 44 (1962)

Meeting Speeches

MS No.

307 R	Texture and Orientation of Evaporated Bismuth Films	T. P. Turnbull E. P. Warekois	<u>Metallurgy of Semiconductor Materials</u> (Interseience Publishers, New York, 1962)
328	The Design of Radar Astronomy Instrumentation	H. G. Weiss	NEREM Record (1961)
343	The $(1 - \cos \varphi)$ Radiometer	J. W. McGinn	NEREM Record (1961)
344	Radiometric Instrumentation at Eight Millimeters	J. W. Meyer J. J. Kirwan D. M. Towle	NEREM Record (1961)
347 R	Statistical Mechanics of Dilute Solid Solutions	R. F. Brebriek	J. Appl. Phys. <u>33S</u> , 422 (1962)
350 R	Cobalt Ferrite Crystal Growth from the Ternary Flux System $\text{Na}_2\text{O}-\text{CoO}-\text{Fe}_2\text{O}_3$	W. Kunnmann A. Wold E. Banks	J. Appl. Phys. <u>33S</u> , 1364 (1962)
351 R	Vanadium Iron Oxides	A. Wold D. Rogers R. J. Arnott N. Menyuk	J. Appl. Phys. <u>33S</u> , 1208 (1962)
353 R	Antiferromagnetic Resonance in MnTiO_3	J. J. Stiekler G. S. Heller	J. Appl. Phys. <u>33S</u> , 1302 (1962)
356 R	Isotropic Stress Measurements in Permalloy Films	G. P. Weiss D. O. Smith	J. Appl. Phys. <u>33S</u> , 1166 (1962)
361 R	Magnetic Properties of Cr_5S_6 in Chromium Sulfides	K. Dwight R. W. Germann N. Menyuk A. Wold	J. Appl. Phys. <u>33S</u> , 1341 (1962)
362 R	Magnetic Transitions in Cubic Spinels	N. Menyuk A. Wold D. B. Rogers K. Dwight	J. Appl. Phys. <u>33S</u> , 1144 (1962)
363 R	Cation-Cation Three-Membered Ring Formation	J. B. Goodcnough	J. Appl. Phys. <u>33S</u> , 1197 (1962)
369A R	Time-Varying Channels with Delay Spread	P. E. Green, Jr.	Proc. Conf. on Microwave Communication, Budapest, 12-15 June 1962
381	An Electronic Decoder for Bose-Chaudhuri-Hocquenghem Error-Correecting Codes	T. C. Bartee D. I. Schneider	Trans. IRE, PGIT <u>IT-8</u> , S-17 (1962)
382 R	Demonstration of Magnetic Domain-Wall Storage and Logic	J. M. Ballantyne	J. Appl. Phys. <u>33S</u> , 1067 (1962)
391 R	Digital Techniques in Neuro-electric Data Processing	W. A. Clark	<u>Computer Techniques in EEG Analysis</u> (Elsevier, Amsterdam, 1961)

MS No.

394 R	Superconducting Magnets	S. H. Autler	NEREM Record (1961)
396 R	A Simple Iterative Procedure for the Identification of the Unknown Parameters of a Linear Time Varying Discrete System	H. Kushner	J. Basic Eng. <u>85</u> , 227 (1963)
423	Scattering from Plasma Cylinders with Radial Variations in Electron Density	C. M. deRidder S. Edelberg	Proc. Conf. on the Plasma Sheath, Boston, Apr. 1962
424 R	Conductance of Germanium in Contact with Aqueous Electrolytes	W. W. Harvey	Ann. N. Y. Acad. Sci. <u>101</u> , 904 (1963)
433 R	A VHF Solar Radar System	W. G. Abel J. H. Chisholm P. L. Fleck J. C. James	IRE Intl. Conv. Record, Pt. 5, (1962)
436 R	Crystallographic Orientation Effects on Some High Temperature Reactions of Germanium	H. C. Gatos M. C. Lavine	Ann. N. Y. Acad. Sci. <u>101</u> , 983 (1963)
437 R	Near-Field Characteristics of a Linear Array	L. J. Ricardi	Proc. Symp. on Electromagnetic Theory and Antennas, Copenhagen, June 1962
441 R	High Magnetic Field Research	B. Lax	J. Appl. Phys. <u>33S</u> , 1025 (1962)
444 R	Error Probabilities for Adaptive Multichannel Reception of Binary Signals	R. Price	Trans. IRE, PGIT <u>IT-8</u> , 305 (1962)
447A	Comparative Analyses of Thin Paraboloidal Shells	J. W. Mar § F. Y. M. Wan	Proc. World Conf. on Shell Structures, San Francisco, Oct. 1962
448 R	SECO: A Self-Regulating Error Correcting Coder-Decoder	K. E. Perry J. M. Wozencraft §	Trans. IRE, PGIT <u>IT-8</u> , 128 (1962)
449 R	Statistical Mechanical Theory of Resonance	P. N. Argyres	Proc. Intl. Conf. on Magnetic and Electric Resonance and Relaxation, Eindhoven, July 1962
451 R	Transport Theory of Electrons in Electric, Magnetic and Phonon Fields	N. J. Horing P. N. Argyres	Proc. Intl. Conf. on Physics of Semiconductors, Exeter, July 1962
453 R	Optical and Electrical Properties of $\text{Cd}_x\text{Hg}_{1-x}\text{Te}$ Alloys	A. J. Strauss T. C. Harman J. G. Mavroides D. H. Diekey M. S. Dresselhaus	Proc. Intl. Conf. on Physics of Semiconductors, Exeter, July 1962

Meeting Speeches

MS No.

454 R	Millimeter Cyclotron Resonance in Diamond	C. J. Rauch	Proc. Intl. Conf. on Physics of Semiconductors, Exeter July 1962
455 R	Magneto-Absorption in InSb: Valence Band Anisotropy. Measurements Far Above Absorption Edge	S. Zwerdling W. H. Kleiner J. P. Theriault	Proc. Intl. Conf. on Physics of Semiconductors, Exeter, July 1962
456 R	Effective Mass Measurements in Semiconductors	B. Lax	Proc. Intl. Conf. on Physics of Semiconductors, Exeter, July 1962
457 R	Dispersion Theory, Interband and Plasma Effects	B. Lax J. G. Mavroides J. Kolodieczak §	Proc. Intl. Conf. on Physics of Semiconductors, Exeter, July 1962
461A R	Ferromagnetism and Antifer- romagnetism in a Simple Cubic Lattice	G. F. Dresselhaus	Proc. Intl. Conf. on Low Tempera- ture Physics, London, Sept. 1962
470 R	Keynote: Some Notes on the Technology of Recognition	O. G. Selfridge	Proc. Symp. on Optical Character Recognition, Washington, Jan. 1962
475A R	Foamed Materials in the Design of Precision Radar Reflectors	C. A. Pappas E. B. Murphy	Proc. Regional Tech. Conf. of Soc. Plastics Engineers, Boston, June 1962
479 R	Quantum Effects in Germanium and Silicon	G. S. Heller J. J. Stickler H. J. Zeiger	Proc. Intl. Conf. on Magnetic and Electric Resonance and Relaxa- tion, Eindhoven, July 1962
480	Antiferromagnetic Resonance in Powders	G. S. Heller J. J. Stickler A. Wold	Proc. Intl. Conf. on Magnetic and Electric Resonance and Relaxa- tion, Eindhoven, July 1962
482A R	Some Similarities Between the Behavior of a Neural Network Model and Electrophysiological Experiments	B. G. Farley	Proc. Conf. on Self-Organizing Systems, Chicago, May 1962
487	Radar Measurements of Venus	G. H. Pettengill	Proc. Third Intl. Space Science Symp., Washington, May 1962
504	Theory of Indirect Exchange in Rare Earth Metals	D. H. Lyons T. A. Kaplan	Bull. Am. Phys. Soc. <u>7</u> , 313 (1962)
508 R	A Computer Program for Recognizing the English Fricative Consonants $ f $ and $ \theta $	J. W. Forgie C. D. Forgie	Proc. Fourth Intl. Cong. on Acoustics, Copenhagen, Aug. 1962
509 R	Problems in the Study of the Nervous System	B. G. Farley	Proc. Western Joint Computer Conf., San Francisco, May 1962
510 R	Circuits for the FX-1 Computer	K. H. Konkle	Proc. Western Joint Computer Conf., San Francisco, May 1962

MS No.

512 R	The Niobium-Tin System: Stability Ranges and Superconducting Properties of Nb_2Sn_3 and Nb_3Sn_2	T. B. Reed H. C. Gatos W. J. LaFleur J. T. Roddy	<u>Superconductors</u> (Interscience Publishers, New York, 1962)
513 R	Description of a Computer Program for Pitch Detection	B. Gold	Proc. Fourth Intl. Cong. on Acoustics, Copenhagen, Aug. 1962
519 R	The Chemical Approach to Semiconductors	H. C. Gatos A. J. Rosenberg	Proc. Symp. on Physics and Chemistry of Ceramics, Pennsylvania State Univ., May 1962
521 R	Radar Reflections from the Sun at VIHF	W. G. Abel J. H. Chisholm J. C. James	<u>Space Research III</u> (Proc. Third Intl. Space Science Symp.) (North-Holland, Amsterdam, 1963)
524	C-Band Radar - Beacon Tracking for Project Mercury	B. H. Labitt	Trans. IEEE, Commun. Electron., No. 69, 647 (1963)
525	Tracking Performance of the Mercury Quad-Helix Acquisition Aid	J. G. Barry G. F. Dalrymple	Trans. IEEE, Commun. Electron., No. 69, 657 (1963)
527	Performance Evaluation Techniques for a Large Aperture Millimeter System	V. L. Lynn E. A. Crocker J. W. Meyer	Proc. Electromagnetic Window Symp., Columbus, June 1962
531 R	The Organization of Organization	O. G. Selfridge	Proc. Conf. on Self-Organizing Systems, Chicago, May 1962
543 R	Critical Heat Currents in Liquid Helium II	C. E. Chase	Proc. Intl. Conf. on Low Temperature Physics, London, Sept. 1962
544	Energy of a Vortex Ring in a Tube and Critical Velocities in Liquid He II	J. C. Fineman C. E. Chase	Proc. Intl. Conf. on Low Temperature Physics, London, Sept. 1962
548B	A Pulse Compression System Employing a Linear FM Gaussian Signal	E. N. Fowle § D. R. Carey R. E. VanderSchoor R. C. Yost	Proc. RADC Symp., Griffiss AFB, New York, Oct. 1962
549 R	Hill Climbing Methods for the Optimization of Multi-parameter Noise Disturbed Systems	H. J. Kushner	J. Basic Eng. <u>85</u> , 157 (1963)
551 R	Measurements of the Superconducting Energy Gap in Lead and Aluminum Films	D. H. Douglass, Jr. R. H. Meservey	Proc. Intl. Conf. on Low Temperature Physics, London, Sept. 1962
556 R	New Method for Measuring Changes in Surface Impedance: Application to Superconducting Tin at X-Band	M. S. Dresselhaus D. H. Douglass, Jr. R. H. Kyhl §	Proc. Intl. Conf. on Low Temperature Physics, London, Sept. 1962

Meeting Speeches

MS No.

560 R	Real-Channel Aspects of an Error-Free Data Transmission System for Toll-Grade Telephone Circuits	W. G. Schmidt	Proc. WESCON, Los Angeles, Aug. 1962
567 R	Thunderstorm Excitation of the Earth-Ionosphere Cavity	M. Balser C. A. Wagner	Proc. AGARD Conf., Munich, Sept. 1962
581	Mobility Without Vision by Living Creatures Other Than Man (With Special Reference to Insectivorous Bats)	F. A. Webster §	Proc. Mobility Research Conf., M.I.T., Oct. 1961
583 R	An Evaluation of Recent Developments in the Field of Learning Machines	O. G. Selfridge	IRE Intl. Conv. Record (1962)
588 R	Vapor Growth and Doping of Silicon Crystals Using Tellurium as Carrier	S. Fischler	<u>Metallurgy of Advanced Electronic Materials</u> , Vol. 19 (Interscience Publishers, New York, 1963)
589 R	Superconducting Behavior of Some β -Tungsten Structure Niobium Compounds and Their Alloys	T. B. Reed H. C. Gatos W. J. LaFleur J. T. Roddy	<u>Metallurgy of Advanced Electronic Materials</u> , Vol. 19, (Interscience Publishers, New York, 1963)
590 R	Analysis of Large Pin-Connected Three-Dimensional Frameworks	K. S. Parikh § E. C. Rossow § J. M. Biggs §	Proc. Symp. on Use of Computers in Civil Engineering, Lisbon, Oct. 1962
591 R	Current Status of High-Field Superconductivity	S. H. Autler	<u>Metallurgy of Advanced Electronic Materials</u> , Vol. 19 (Interscience Publishers, New York, 1963)
594 R	The Reaction of Stannane with Niobium Wires, and Their Resulting Superconducting Behavior	M. D. Banus H. C. Gatos M. C. Lavine T. B. Reed	<u>Metallurgy of Advanced Electronic Materials</u> , Vol. 19 (Interscience Publishers, New York, 1963)
595	Radar Studies of the Lunar Surface	J. V. Evans	NEREM Record (1962)
599	Growth and Nucleation Sites on Iron Whiskers, as Revealed by an Oxide Replica Technique	T. P. Turnbull M. J. Button	Proc. Intl. Cong. For Electron Microscopy, Philadelphia, Aug. 1962
601	A Lorentz Attachment for the RCA EMU-3 Microscope	M. S. Cohen	Proc. Intl. Cong. for Electron Microscopy, Philadelphia, Aug. 1962
615 R	Minimum Fuel Feedback Control Systems: Second Order Case	M. Athans	Trans. IEEE, and Appl. Indust. <u>81</u> , 321 (1963)
621	Experimental Evaluation of a 1000-Wavelength Antenna	V. L. Lynn K. J. Keeping W. D. Fitzgerald	NEREM Record (1962)

Meeting Speeches

MS No.

626 R	Visual Pattern Recognition: The Problems and Promise	O. G. Selfridge	Proc. Intl. Cong. on Teehnology and Blindness, New York, June 1962
627 R	The Biased-Gap Klystron	I. Hefni	Proc. High-Power Microwave Tube Symp., Fort Monmouth, Sept. 1962
628 R	Antiferromagnetic Materials and Their Application at Millimeter and Submillimeter Wavelengths	G. S. Heller	NEREM Record (1962)
630	Magnetostatic Modes in Thin Films	K. J. Harte	Bull. Am. Phys. Soc. <u>7</u> , 448 (1962)
632 R	Cascading Low-Gain Parametric Amplifier Stages	C. Blake	Proc. Natl. Electronics Conf., Chicago, Oct. 1962
640 R	Spiral and Coneentric-Circle Walls Observed by Lorentz Microscopy	M. S. Cohen	J. Appl. Phys. <u>34</u> , 1221 (1963)
641	The Self-Shielded Microwave Discharge	C. E. Muehe	NEREM Record (1962)
644 R	Measurement of the Surface Temperature of a Solid Under Electron Bombardment	E. Silverman	Proc. High-Power Microwave Tube Symp., Fort Monmouth, Sept. 1962
645	Radio Echo Studies of the Moon	J. V. Evans	Proc. Conf. on Lunar Exploration, Virginia Polytechnic Institute, Aug. 1962
654	Stimulated Infrared Emission from Small Glass Fibers	H. A. Bostick	Proc. Boston Laser Conf., Northeastern Univ., Aug. 1962
660 R	Rotatable Anisotropy in Negative Magnetostriction Ni-Fe Films	S. S. Lehrer	J. Appl. Phys. <u>34</u> , 1207 (1963)
662 R	Crystallographic Transitions in Several Chromium Spinel Systems	A. Wold R. J. Arnott E. Whipple J. B. Goodenough	J. Appl. Phys. <u>34</u> , 1085 (1963)
665 R	Thermodynamic Self-Consistent Theory of Indirect Exchange in Metals	T. A. Kaplan	J. Appl. Phys. <u>34</u> , 1339 (1963)
666 R	Magnetic Properties of a Single Crystal of Manganese Phosphide	E. E. Huber, Jr. D. H. Ridgley	J. Appl. Phys. <u>34</u> , 1099 (1963)
669 R	Atomic Moments and Magnetic Coupling in Cation Exceess- Nickel Arsenides	J. B. Goodenough	J. Appl. Phys. <u>34</u> , 1193 (1963)

Meeting Speeches

MS No.

671 R	Flux Growth of NiFe_2O_4 Crystals by the Czochralski Method	W. Kunmann A. Ferretti A. Wold	J. Appl. Phys. <u>34</u> , 1264 (1963)
674 R	The Raman Maser	H. J. Zeiger P. E. Tannenwald	Quantum Electronics III, Vol. 2 (Columbia Univ. Press, New York, 1964)
675 R	Recombination Radiation Emitted by Gallium Arsenide	R. J. Keyes T. M. Quist	Quantum Electronics III, Vol. 2 (Columbia Univ. Press, New York, 1964)
676 R	Optically-Pumped Parametric Oscillators at Microwave and Infrared Frequencies	J. H. Dennis P. R. Longaker R. H. Kingston	Quantum Electronics III, Vol. 2 (Columbia Univ. Press, New York, 1964)
679 R	Antiferromagnetism in NiTiO_3	G. S. Heller J. J. Stickler S. Kern A. Wold	J. Appl. Phys. <u>34</u> , 1033 (1963)
680 R	Drive Current Margins of Magnetic Film Memories	A. H. Anderson T. S. Crowther J. I. Raffel	J. Appl. Phys. <u>34</u> , 1165 (1963)
685 R	Nonlinear Effects in Solid State Plasmas	B. Lax A. L. McWhorter J. G. Mavroides	Quantum Electronics III, Vol. 2 (Columbia Univ. Press, New York, 1964)
694 R	High Power Tube Techniques	G. L. Guernsey	Proc. Sixth Natl. Conf. on Elec- tron Tube Techniques, New York, Sept. 1962
702	The Haystack Experimental Facility	H. G. Weiss	NEREM Record (1962)
703 R	Time-Optimal Velocity Control of a Spinning Space Body	M. Athans P. L. Falb R. T. Lacoss §	Trans. IEEE, Appl. and Indust. <u>82</u> , 206 (1963)
704	Estimation of a System Pulse Transfer Function in the Presence of Noise	M. J. Levin	Proc. Fourth Joint Automatic Control Conf., Minneapolis, June 1963
707	A New Method of Locating the Maximum Point of an Arbitrary Multipeak Curve in the Presence of Noise	H. J. Kushner	J. Basic Eng. <u>86</u> , 97 (1964)
709	Optimal Control of Self-Adjoint Systems	M. Athans P. L. Falb R. T. Lacoss §	Trans. IEEE, Appl. and Indust. <u>83</u> , 161 (1964)
710	Minimum-Fuel Control of Second-Order Systems with Real Poles	M. Athans	Trans. IEEE, Appl. and Indust. <u>83</u> , 148 (1964)

MS No.

732	Methods for the Adaptive Optimization of Binary Detection Systems	H. J. Kushner	IEEE Intl. Conv. Record, Pt. 4 (1963)
735 R	Semiconductor Maser of GaAs	T. M. Quist R. J. Keyes W. E. Krag B. Lax A. L. McWhorter R. H. Rediker H. J. Zeiger	Quantum Electronics III, Vol. 2 (Columbia Univ. Press, New York, 1964)
752	Comments on the Lincoln Laboratory GaAs Diode Maser	R. H. Rediker	Proc. Lasers and Applications Symp., Ohio State Univ., Nov. 1962
762 R	A Portable Detector for Ultrasounds	J. J. G. McCue A. Bertolini	IEEE Intl. Conv. Record, Pt. 9 (1963)
770	Fuel-Optimal Control of a Double-Integral Plant with Response Time Constraints	M. Athans	Accepted Trans. IEEE
774 R	Trends in Radome Design Parameters	M. M. Hannoosh § R. A. Muldoon	Proc. Society of Plastics Industry, Reinforced Plastics Division, Chicago, Feb. 1963
779B	Semiconductor Masers	B. Lax	Proc. Symp. on Optical Masers, Polytechnic Institute of Brooklyn, Apr. 1963
828 R	Theoretical Temperature Rise in Materials Due to Electron Beams	G. E. Vibrans	Proc. Fifth Annual Electron Beam Symp., Boston, Mar. 1963
831 R	Report on Progress in Information Theory in the U. S. A., 1960-1963; Radar Waveform Selection	R. M. Lerner	Trans. IEEE, PTGIT <u>IT-9</u> , 246 (1963)
836 R	Studies of the F-Region by the Incoherent Backscatter Method	J. V. Evans	<u>Electron Density Distribution in the Ionosphere and Exosphere</u> (Proc. NATO Advanced Study Institute) (North-Holland, Amsterdam, 1964)
843	Approximate Theory of Magnetic Ordering in Heisenberg Magnets	T. A. Kaplan	Accepted Proc. Symp. on Some Problems of the Physics of Ferromagnetism and Ferroelectricity, Leningrad, May 1963
845 R	Nonlinear Effects in a Plasma	M. S. Macrakis	Proc. Intl. Symp. on Ionization Phenomena, Paris, July 1963
867	The Effects of Computer Science on Engineering Mathematics	T. C. Bartee	Proc. OECD Conf. on Engineering Mathematics, Rome, May 1963

Meeting Speeches

MS No.

881 R	AC Susceptibility Measurements on Transition Metal Superconductors Containing Rare Earth and Ferromagnetic Metal Solutes	M. Strongin E. Maxwell T. B. Reed	Revs. Modern Phys. <u>36</u> , 164 (1964)
892	Combination Diplexer and Circular Polarization Transducer	J. B. Rankin	NEREM Record (1963)
895	Rapid Freeze Method for Growth of Bismuth Single Crystals	S. Fischler	Proc. Conf. on Advanced Electronic Material, Boston, Aug. 1963
896	Long-Range Millimeter Radars	V. L. Lynn M. D. Sohigian	NEREM Record (1963)
904	Recent Developments in Plasma Generation	T. B. Reed	Proc. Natl. Electronics Conf., Northwestern Univ., Oct. 1963
909	Use of Burst Mode Waveforms in High Resolution Radars	A. A. Galvin	NEREM Record (1963)
910	Injection Lasers and Injection Luminescence	R. H. Rediker	NEREM Record (1963)
913A R	A Multilayer Dielectric- and Magnetic-Film Memory Cell Designed for Optical Read-Out	D. O. Smith	J. Appl. Phys. <u>35</u> , 772 (1964)
917B R	Magnetic Properties of Ni-Fe-Cr Films	M. S. Cohen	J. Appl. Phys. <u>35</u> , 834 (1964)
918 R	Deposition Temperature and Compositional Dependence of Negative Anisotropy in Nickel-Iron Films	G. P. Weiss D. O. Smith	J. Appl. Phys. <u>35</u> , 818 (1964)
921	Nernst-Ettingshausen Energy Conversion	T. C. Harman	NEREM Record (1963)
940	Narrow Band vs Localized d Electrons	J. B. Goodenough	Accepted Proc. Buhl Intl. Conf. on Materials, Pittsburgh, Oct. 1963
941 R	Spin Correlations Among Narrow-Band Electrons	J. B. Goodenough	J. Appl. Phys. <u>35</u> , 1083 (1964)
943 R	Electrical Conductivity in the Spinel System $\text{Co}_{1-x}\text{Li}_x\text{V}_2\text{O}_4$	D. B. Rogers J. B. Goodenough A. Wold	J. Appl. Phys. <u>35</u> , 1069 (1964)
952 R	Future Developments in Large Magnetic Film Memories	J. I. Raffel	J. Appl. Phys. <u>35</u> , 748 (1964)

REPORTS PREPARED FOR LINCOLN LABORATORY

			<u>DDC No.</u>	<u>Hayden Serial and Prices</u>
Research Report on Arbitrary Linear System Synthesis	Andersen Laboratories, Inc.	29 June 1953	221624	
A Report on the Conversion of Collins 207B-1 Transmitters, Engineering Report No. 221	Collins Radio Co.	9 July 1951	221566	
Frequency Modulation and Frequency Shift Keying Exciter, Collins Part No. 505 4702 004, Engineering Report No. 224	Collins Radio Co.	31 July 1951	221564	
Operation of a VHF Transmitter for Long-Distance Propagation Test, Research Report No. 113	Collins Radio Co.	1 Nov. 1951	118400	
Rhombic Antenna Pattern Measurements, Research Report No. 126	Collins Radio Co.	31 Oct. 1952	118401	
Operation of a VHF Transmitter for Long Distance Propagation Test, Research Report No. 129	Collins Radio Co.	1 July 1953	221568	
Operation of a VHF Transmitter for Long Distance Propagation Test, Research Report No. 130	Collins Radio Co.	31 Jan. 1954	221565	
Operation of a VHF Transmitter for Long Distance Propagation Test, Research Report No. 135	Collins Radio Co.	1 July 1954	221567	
Rhombic Antenna Pattern Measurement, Research Report No. 133	Collins Radio Co.	16 July 1954	221563	
Final Engineering Report and Instruction Book on 50 Megacycle Pulse Receiver Development Type 53B-1, Engineering Report No. 380	Collins Radio Co.	15 Dec. 1954	240867	
Operation of a VHF Transmitter for Long Distance Propagation Test, Research Report No. 136	Collins Radio Co.	1 Jan. 1955	240781	
Operation of a VHF Transmitter for Long Distance Propagation Test, Engineering Report No. 417	Collins Radio Co.	1 July 1955	221562	

Reports Prepared for Lincoln Laboratory

			<u>DDC No.</u>	<u>Hayden Serial and Prices</u>
Final Report – Operation of a VHF Transmitter for Long Distance Propagation Test, Engineering Report No. 457	Collins Radio Co.	1 Jan. 1956	240798	
Square Hysteresis Loop Ferrite Development, Ninth Quarterly Progress Report	General Ceramics Corp.	1 July – 30 Sept. 1954	240563	
Square Hysteresis Loop Ferrite Development, Tenth Quarterly Progress Report	General Ceramics Corp.	1 Oct. – 31 Dec. 1954	240564	
Square Hysteresis Loop Ferrite Development, Eleventh and Twelfth Quarterly Progress Report	General Ceramics Corp.	1 Jan. – 30 June 1955	240565	
Contract for Services, Materials and Facilities for the Development of Ferrites for Digital Computers, Final Report	General Ceramics Corp.	1 May 1952 – 30 June 1955	221571	
Analysis of Magnetic Amplifiers by the Use of Difference Equations, Technical Report No. SRL 7002-7	MIT Servomechanisms Laboratory	27 Aug. 1954	240458	
Application of a Magnetic Amplifier to a High Performance Instrument Servo, Technical Report No. SRL 7002-10	MIT Servomechanisms Laboratory	May 1955	81981	
A Magnetic-Amplifier Simulator, Technical Report No. SRL 7002-11	MIT Servomechanisms Laboratory	23 May 1955	81980	
A Differentiator for A-C Computers, Technical Report No. SRL 7002-12	MIT Servomechanisms Laboratory	May 1956	130676	
Power Switching Transistors in Servo-Amplifiers, Technical Report No. SRL 7002-13	MIT Servomechanisms Laboratory	June 1956	240456	
An Accurate Transistorized Multiplier-Divider, Technical Report No. SRL 7002-14	MIT Servomechanisms Laboratory	June 1956	240459	
Coulomb Friction Compensation of Potentiometer Wire-Stepping Oscillation in Servos, Technical Report No. SRL 7002-15	MIT Servomechanisms Laboratory	15 June 1956	240460	

Reports Prepared for Lincoln Laboratory

			<u>DDC No.</u>	<u>Hayden Serial and Prices</u>
A Study of Dual-Mode Damper-Stabilized Servo, Technical Report No. SRL 7002-16	MIT Servomechanisms Laboratory	15 June 1956	240488	
Development of Two Megawatt 675 MC Pulse Magnetron QK517, Summary Technical Report	Raytheon Co.	27 Dec. 1955 – 1 June 1956	246817	
Development of QK516 Two Megawatt UHF Tunable Pulse Magnetron, Interim Progress Report	Raytheon Co.	1 June 1956 – 1 Feb. 1957	246816	
Development of a Two Megawatt UHF-Band Tunable Magnetron, QK499-QK508-QK516 Final Engineering Report	Raytheon Co.	15 Feb. 1954 – 30 June 1957	246815	
Evaluation of Fluid Bearing Types for Large Antennas, Interim Progress Report No. I-A2245-1	The Franklin Institute	15 Dec. 1958 – 15 June 1959	256449	
Study of the Application of Hydrostatic Lubrication to the Support of a 300 Foot Paraboloid Antenna. . . , Interim Report No. I-A2245-2	The Franklin Institute	1 Sept. 1959	242191	
Analysis of Radial Bearings, Consisting of a Number of Hydrostatic Bearing Pads Mounted on Elastic Supports, Interim Report No. I-A2245-3	The Franklin Institute	28 Sept. 1959	241707	
Analysis of Captive Thrust Bearings Consisting of a Number of Hydrostatic Bearing Pads on Elastic Supports, Interim Report No. I-A2245-4	The Franklin Institute	Nov. 1959	241703	
Analysis of Non-Captive Thrust Bearings Consisting of a Number of Hydrostatic Bearing Pads on Elastic Supports, Interim Report No. I-A2245-5	The Franklin Institute	16 Oct. 1959	241764	
Analysis of Some Structural Problems Associated with the Design of Large Hydrostatic Bearings, Interim Report No. I-A2245-6	The Franklin Institute		241765	

Reports Prepared for Lincoln Laboratory

			DDC No.	Hayden Serial and Prices
Hydrostatic Bearing Compensating Element Study, Interim Report No. I-A2245-7	The Franklin Institute		241704	
The Effect of the Method of Compensation on Hydrostatic Bearing Stiffness, Interim Report No. I-A2245-8	The Franklin Institute	Dec. 1959	241705	
A Comparative Analysis of Hydrostatic Bearing Pad Configuration, Interim Report No. I-A2245-9	The Franklin Institute	Jan. 1960	241706	
Hydrostatic Bearings and Related Topics: A Survey of Technical Literature. . . , Interim Report No. I-A2245-10	The Franklin Institute		241584	
Hydrostatic Bearings for Large Antennas, A Survey, Final Report F-A2245	The Franklin Institute	Jan. 1960	241585	
A Method to Study the Static and Dynamic Behavior of a Radome Panel, LL-VII-22	MIT Aeroelastic and Structures Research Laboratory	Aug. 1960	246187	H-211 M \$1.50 P \$13.60
Survey of Hypervelocity Impact Information ASRL Report No. 99-1, LL-II-60	MIT Aeroelastic and Structures Research Laboratory	Sept. 1961	267289	H-363 M \$3.50 P \$62.90
Survey of Hypervelocity Impact Information, Addendum ASRL Report No. 99-1, Add. LL-II-60	MIT Aeroelastic and Structures Research Laboratory	Sept. 1961	267289	H-364 M \$2.40 P \$47.90

LINCOLN LABORATORY PUBLICATIONS

An Introduction to the Theory of Random Signals and Noise	W. B. Davenport, Jr. W. L. Root	1958	McGraw-Hill Book Co., Inc., New York
Microwave Ferrites and Ferrimagnetics	B. Lax K. J. Button	1962	McGraw-Hill Book Co., Inc., New York
Theory and Design of Digital Machines	T. C. Bartee I. L. Lebow I. S. Reed	1962	McGraw-Hill Book Co., Inc., New York
Digital Computers in Research	B. F. Green, Jr.	1963	McGraw-Hill Book Co., Inc., New York

LINCOLN LABORATORY MONOGRAPHS

The Prediction of Ballistic Missile Trajectories from Radar Observations	I. I. Shapiro	1958	McGraw-Hill Book Co., Inc., New York
--	---------------	------	---

ABSTRACTS

		<u>DDC No.</u>	<u>Hayden Serial and Prices</u>
Abstracts of Scientific and Engineering Papers			
†1954-1956		249720	H-240 M \$2.05 P \$57.40
1956-1960	June 1960	249839	H-241 M \$2.20 P \$51.10
1960-1962	June 1962	276880	H-449 M \$1.50 P \$21.65

SPECIAL REPORTS

		DDC <u>No.</u>	Hayden Serial <u>and Prices</u>
Symposium on Rigid Radomes, M.I.T., 8-10 September 1958	15 Oct. 1958		
†Vol. 1		232582	
Conference on Lubrication of Large Bearing and Drive Gearing Systems, Lincoln Laboratory, 13-14 May 1959	Dec. 1959		
Symposium on the Application of Low Noise Receivers to Radar and Allied Equipment, Lincoln Laboratory, 24-28 October 1960	22 Nov. 1960		
†Vol. 2		248691	
†Vol. 3		248692	
†Final Report, Project Barnstable	30 June 1960	240363	

LINCOLN LABORATORY LIBRARY REFERENCE BIBLIOGRAPHIES

No.			DDC No.	Hayden Serial and Prices
1	Generation and Properties of Thermal Plasmas (1955-1960)	28 Nov. 1960	250956	H-251 M \$1.50 P \$2.80
2	Infrared Spectrum Analysis of Plastics and Resins, Particularly Polyurethanes, Polyesters, Epoxys, and Polymers (1950-1960)			
3	Preparation and Properties of Indium Antimonide Thin Films and Devices Using Indium Antimonide (1955-1960)	28 Dec. 1960	250957	H-252 M \$1.50 P \$4.90
4	Continuous Motion Principle as Applied to Photography and Television (1950-1960)			
5	Adaptive or Self-Optimizing Control Systems (1950-February 1961)	8 Feb. 1961	254335	H-282 M \$1.50 P \$4.90
6	Instrumentation for Recovery and Re-entry of Manned Spacecraft (1955-April 1961)			
7	Perturbative Forces Affecting the Motions of Artificial Earth Satellites (1955-April 1961)	2 Oct. 1961	272830	H-381 M \$1.50 P \$14.40
8	Artificial Intelligence - Soviet Bloc (1950-1961)	27 Dec. 1961	271667	H-378 M \$1.50 P \$6.65
9	Network Flow Theory Especially the Transportation Problem, the Shortest Route Problem and Queuing Theory (1957-1961)			
10	Transition Probabilities, Dissociation Energies, and Emissivities of Atoms and Molecules of the Elements and Common Metal Oxides (1947-May 1962)			
11	Ship Stabilization and Position Keeping Devices (1950-March 1962)			
12	Tropospheric Scatter Communication Systems (1955-July 1962)			

Reference Bibliographies

No.			DDC No.	Hayden Serial and Prices
13	Soviet Books on Radiotechnology and Electronics in 1962 (1962)	4 Sept. 1962	285491	H-429 M \$1.50 P \$12.40
14	Radar Astronomy (1946-August 1962)	31 Dec. 1962	294683	H-462 M \$1.50 P \$4.15
15-1	Radomes, Part I (1949-November 1962)	31 Jan. 1963	401159	H-493 M \$1.50 P \$7.90
15-2	Radomes, Part II (1949-November 1962)	28 Feb. 1963	403145	
16	Raman Spectra of Inorganic Solids with Emphasis on Quartz (1947-December 1962)			
17	Diamond: Synthesis and Properties (1958-December 1962)	30 Apr. 1963	415716	H-509 M \$1.50 P \$4.20
18	Superconducting Magnets and Properties of Superconductors (1960-January 1963)			
19	Photometric Measurements of the Lunar Surface (1952-April 1963)			
21	Redundancy Techniques for Achieving Reliability in Logical Networks (1962-July 1963)			
22	Representations and Applications of Lorentz Groups (1956-September 1963)			
23	Attitude Perturbation and Control of Artificial Earth Satellites (1957-December 1963)			
24	Depolarization of Electromagnetic Radiation Scattered from Anisotropic Media (1947-April 1964)			

LINCOLN LABORATORY LIBRARY QUICK SEARCHES

No.		<u>Period Covered</u>	<u>Date Completed</u>
Q-1	Electronic Aids in Air Navigation	1956-1962	July 1962
Q-2	Recent Developments in Package Nuclear Power Reactors	1959-Sept. 1962	Sept. 1962
Q-3	Design of Logic Circuits Using Transistors	1958-1962	Nov. 1962
Q-4	Instrumentation for Television Scan and Frame Rate Conversion	1952-1962	Dec. 1962
Q-5	Residual Gas Analysis in Vacuum Systems	1959-Apr. 1963	July 1963
Q-6	Artificial Dielectrics for Focusing Microwaves	1948-Jan. 1963	Aug. 1963
Q-7	Ultrasonic Absorption in Air	1946-June 1963	July 1963
Q-8	Electronic Photography	1958-Apr. 1963	May 1963
Q-9	Integrating Microdensitometry of Photographs	1959-June 1963	July 1963
Q-10	Preparation and Properties of Europium Monoxide and Chromium Dioxide	1928-Oct. 1963	Nov. 1963

INDEX OF LINCOLN LABORATORY AUTHORS

Underlined JA numbers indicate Meeting Speeches.
Since 1960, Meeting Speeches have been assigned
MS numbers.

- Abel, W. G., TR-81; JA-344, JA-1824; MS-433, MS-521
- Adler, R. B., TR-25
- Aho, E. J., TR-212; JA-855, JA-1745
- Akutowicz, E. J., JA-331, JA-381, JA-446, JA-476, JA-488, JA-1000
- Allen, J. L., TR-228, TR-236, TR-281, TR-299, TR-323; GR-31-150; JA-1671, JA-1890, JA-1892, JA-1952, JA-2304
- Ames, L. A., TR-3
- Anderson, A. H., TR-278; GR-51-11; JA-1659; MS-680
- Anderson, L. K., TR-49; JA-188, JA-196, JA-261
- Andrews, W. A., GR-46-42
- Archer, D. H., TR-168
- Argyres, P. N., GR-81G-0031; JA-1302, JA-1357, JA-1546A, JA-1869, JA-2138, JA-2277; MS-205, MS-449, MS-451
- Armenti, A. W., TR-283
- Arnott, R. J., JA-1106, JA-1454, JA-1697, JA-1708, JA-1721, JA-1973A, JA-2116, JA-2117A, JA-2219; JA-869, JA-1425, MS-351, MS-662
- Arthur, J. S., JA-1423A
- Artman, J. O., TR-70; JA-48, JA-273, JA-418, JA-512; JA-857
- Assaly, R. N., TR-277, TR-313, TR-347; GR-315G-0001, GR-315G-2, GR-315G-5
- Athans (Athanassiades) M., GR-22G-4, GR-22G-8, GR-22G-9, GR-1964-12; JA-1909, JA-1923, JA-2060, JA-2145, JA-2273; JA-2310; MS-615, MS-703, MS-709, MS-710, MS-770
- Autler, S. H., JA-977, JA-1050, JA-1477, JA-2005, JA-2238, JA-2260; JA-602, MS-394, MS-591
- Averbach, B. L., JA-416, JA-433, JA-839
- Axelbank, M., TR-160; GR-47-26, GR-47G-0001, GR-47G-0004, GR-47G-3; JA-911; JA-1163
- Bagley, P. R., GR-22G-0002; JA-1226, JA-1336
- Baker, R. A., JA-122
- Baker, R. H., TR-8, TR-27, TR-32, TR-100, TR-110, TR-120, TR-130, TR-300, TR-337; JA-7, JA-14, JA-49, JA-178, JA-577
- Ballantyne, J. M., MS-382
- Balser, M., TR-39, TR-48; JA-86, JA-132, JA-156, JA-574, JA-1107, JA-1579; JA-1647, JA-1831, JA-1916, JA-1917, JA-2038, JA-2144, JA-2218; MS-567
- Banks, E., JA-768, JA-814; MS-350
- Banus, M. D., JA-1863A, JA-1929, JA-1951, JA-2045, JA-2202, JA-2243, JA-2265; MS-594
- Barker, D. B., TR-153
- Barry, J. G., JA-2237; MS-525
- Bartee, T. C., TR-191, TR-318; JA-1645, JA-1657, JA-1665, JA-2012; JA-1139, MS-52, MS-381, MS-867
- Basore, B. L., TR-7
- Bauer, J. R., TR-124, TR-186; GR-33G-0015, GR-312G-7; JA-886
- Behrndt, M. E., JA-1059; JA-1033
- Benedek, G. B., JA-387
- Bennett, H. S., GR-46G-0006
- Bennett, J. F., TR-24
- Berg, R. S., TR-251, TR-275; GR-52G-6; JA-1752
- Bernella, D. M., TR-299
- Bertolini, A., GR-47G-0010, GR-47G-0010-1; JA-2286; MS-762
- Bess, L., TR-18; JA-54, JA-258, JA-370, JA-422
- Best, R. L., JA-1039
- Billups, R. R., TR-200, TR-223; JA-1808
- Bird, L. E., JA-1369, JA-1448, JA-1650A, JA-2218
- Bivans, E. W., TR-61, TR-104; JA-252
- Blaisdell, E. W., JA-2317-10
- Blake, C., TR-202; GR-46-38, GR-46G-0009; JA-1059, JA-1376, JA-1729, JA-1847, JA-2013, JA-2097; MS-178, MS-632
- Blatt, H., TR-278
- Bluestein, L. I., GR-65G-2, GR-65G-4; JA-2046A

Author Index

- Blustein, G., GR-62G-5
 Boisvert, M., TR-25
 Borison, S. L., GR-41G-5, GR-1964-14
 Bostiek, H. A., GR-26G-1; JA-1813A, JA-1888; MS-654
 Both, W. A., GR-46G-0010
 Bowles, L. W., JA-2013
 Brebrick, R. F., JA-1957, JA-2068, JA-2270, JA-2328; MS-347
 Brennan, D. G., TR-93; GR-36-36; JA-384, JA-747, JA-1027
 Bressel, C., GR-312G-10
 Briscoe, H. W., JA-1593, JA-1784, JA-1919; MS-10A, MS-253A
 Broekelman, R. A., TR-332, TR-341
 Bromaghim, D. R., GR-41G-0002, GR-41G-0004
 Brooks, H., JA-387
 Brown, D. R., JA-93
 Brown, J. R., GR-21G-0001
 Brown, L. T., JA-1267, JA-1340
 Brown, M. C., JA-2268
 Brown, R. M., JA-1640
 Brown, R. N., JA-1661, JA-2001
 Brown, R. R., JA-903
 Bryant, B. W., TR-290
 Buek, D. A., JA-32, JA-93, JA-287
 Bullis, W. M., TR-115; JA-403, JA-498, JA-552
 Burgess, R. G., TR-300; JA-1984
 Burgiel, T. C., TR-302
 Burke, R. L., TR-199, TR-221; JA-1241
 Burke, W. T., GR-36-25
 Butman, R. C., TR-257
 Button, K. J., TR-89, TR-176; GR-84-4; JA-92, JA-342, JA-343, JA-448, JA-890, JA-951, JA-1085, JA-1149, JA-1216, JA-1495, JA-1516, JA-1521, JA-1643, JA-1821, JA-2037; JA-317, JA-542, MS-180
 Button, M. J., JA-763, JA-2326; MS-599
 Byrnes, B., GR-34-72

 Cahlander, D. A., GR-47G-0003; JA-2016, JA-2266; JA-1584
 Calawa, A. R., JA-1629, JA-1785, JA-2028, JA-2246
 Camp, W. W., TR-228
 Campbell, R. A., JA-498
 Candidus, E. S., TR-82; JA-251
 Canon, M. D., GR-1964-12
 Carbone, R. J., GR-46-45; JA-2306
 Carey, D. R., JA-1974; MS-548B
 Carney, A. L., JA-348
 Carpenter, A., TR-194
 Carpenter, W. W., TR-299
 Carr, P. H., GR-81G-0028; JA-1429
 Carroll, T. J., TR-38, TR-190; JA-216, JA-541, JA-558
 Cartledge, L., TR-228, TR-236, TR-299; GR-31-148; JA-1587; JA-1324
 Catalano, S. F., GR-43G-1, GR-47-19, GR-47G-6; JA-1326
 Catuna, G. W., JA-864
 Chase, C. E., GR-46-42, GR-46-46; JA-334, JA-1021, JA-1064, JA-1229, JA-1318, JA-1517, JA-1558, JA-1636, JA-1788, JA-1921, JA-1925, JA-1993, JA-2090, JA-2097; JA-1496, JA-1564, MS-78, MS-543, MS-544
 Chatterton, E. J., TR-130; JA-2076
 Cheek, M. H., GR-65G-6, GR-65G-8
 Chisholm, J. H., TR-81, TR-84; JA-320, JA-344, JA-421, JA-978, JA-1655, JA-1824, JA-1861, JA-2300; JA-1104, MS-433, MS-521
 Chomsky, C. S., TR-306; MS-249
 Clark, D. L., GR-47-36
 Clark, W. A., Jr., TR-165; GR-51G-0012; JA-1493, JA-1640, JA-1818; JA-1518A, JA-1518B, MS-391
 Clay, W. G., JA-1772, JA-1891, JA-1967, JA-2078
 Cogdell, J. R., TR-304
 Cohen, A., GR-76G-0003; JA-1133, JA-1703
 Cohen, B., TR-104
 Cohen, M. S., JA-1620, JA-1882, JA-2069; JA-1486, JA-1487, MS-106, MS-601, MS-640, MS-917B
 Conner, H. E., GR-55G-0031
 Craig, J. W., Jr., TR-292; JA-1582
 Crittendon, R., GR-22G-0052, GR-22G-0061
 Crocker, E. A., TR-33. JA-2262; MS-240, MS-527
 Crocker, M. C., JA-2317-8
 Croft, W. J., JA-862, JA-1044, JA-1077, JA-2116; JA-867
 Crook, D. E., GR-36G-5, GR-312G-002, GR-48-8
 Crowther, T. S., TR-278; GR-51-2, GR-51-11; JA-1659, JA-1979, JA-2050, JA-2324; MS-42, MS-680
 Crowther, W. R., GR-21G-0019, GR-21G-0026, GR-21G-0027, GR-21G-4, GR-62G-8; JA-2317-4
 Cuikay, R. S., TR-337
 Curry, G. R., GR-47-26, GR-47G-0001, GR-47G-0004, GR-47G-0014, GR-47G-3; JA-1484
 Curtis, J. P., TR-138

 Dade, E. C., GR-55G-0027
 Daggett, N. L., TR-251; JA-2317-6
 Daley, M. M., GR-22G-0020

Author Index

- Daley, P. F., JA-1369
Dalrymple, G. F., JA-2237; MS-525
Danforth, W. C., Jr., GR-315G-1,
GR-315G-2, GR-61G-1
Davenport, W. B., Jr., JA-937
Davidson, E. A., TR-236
Davis, P., JA-1133
Day, J. W. B., JA-1448, JA-1650A
deBettencourt, J. T., TR-37, TR-81,
TR-84, TR-101; JA-127, JA-320,
JA-344
Delaney, E., JA-1708
Delaney, W. P., TR-228, TR-236, TR-299;
GR-41G-9912; JA-1841, JA-1841A,
JA-1952
DeLong, D. F., GR-41G-5, GR-47-28,
GR-47G-0006
Dennis, J. H., JA-2198; MS-676
deRidder, C. M., TR-322; GR-312G-4,
GR-312G-8; MS-423
Detwiler, S. P., TR-61
Devane, M. E., TR-185, TR-276;
GR-315-3, GR-315G-4
Dexter, R. N., TR-136; JA-118, JA-150,
JA-168, JA-208, JA-209, JA-405,
JA-516, JA-517
Diamond, B. L., TR-286; GR-47G-0012,
GR-47G-5; JA-1903, JA-1987
DiBartolo, J., TR-228, TR-236, TR-299
Dickey, D. H., JA-1854; MS-453
Dinneen, G. P., TR-14, TR-139; JA-410;
JA-1119
Dion, A. R., TR-276, TR-324; GR-61G-3
Ditto, F. H., GR-22G-0005
Dominick, F. J., GR-21G-0013, GR-21G-0016;
MS-179
Douglass, D. H., Jr., JA-1728, JA-1791,
JA-2234, JA-2235; MS-301, MS-551,
MS-556
Doyle, W., JA-1654; JA-1544
Draisin, W., GR-22G-0054
Dresselhaus, G. F., TR-254; JA-208,
JA-1658, JA-1820, JA-1840, JA-1886,
JA-1913; MS-202, MS-204, MS-461A
Dresselhaus, M. S., JA-1658, JA-1661,
JA-1820, JA-1840, JA-1854, JA-2194;
MS-204, MS-453, MS-556
Drinan, J. D., GR-21G-0022-1, GR-21G-0024,
GR-21G-0024-1, GR-21G-3, GR-21G-7,
GR-21G-8, GR-62G-3
Drouilhet, P. R., Jr., TR-292; GR-64G-1;
JA-2245, JA-2317-6
Drury, W. H., GR-41G-0004
Dubinsky, E., GR-22G-0052, GR-22G-0061
Dumanian, J. A., TR-3, TR-139; GR-52G-2;
JA-1962
Durlach, N. I., TR-194; GR-41G-3; JA-1620,
JA-1920, JA-2073
Dwight, K., JA-1076, JA-1522, JA-1570,
JA-1600, JA-1723, JA-1816, JA-1927,
JA-2271; JA-871, JA-1113, MS-14,
MS-133, MS-361, MS-362
Dyer, A. C., GR-312G-12
Eckl, D. J., TR-199, TR-221
Edelberg, S., TR-266; JA-1383, JA-1420,
JA-2104; MS-423
Edwards, D. F., JA-1893, JA-1901
Ehlers, H. H., TR-303; JA-1954, JA-2188
Eisenstadt, B. M., TR-41; GR-34-57
Eldredge, R., JA-1398
Elkind, J. I., TR-111; JA-1184
Elliott, H. M., TR-8, TR-54
Enticknap, R. G., GR-25G-0022; JA-900;
MS-59, MS-60, MS-66
Epstein, M. A., JA-916
Eshleman, D. B., TR-251
Evans, J. V., TR-256, TR-272, TR-274,
TR-288, TR-332, TR-341; GR-3G-0002,
GR-3G-0002-1, GR-3G-0003, GR-3G-0004,
GR-30G-0014; JA-1748, JA-1919, JA-1966,
JA-1988, JA-1994, JA-2192, JA-2299;
MS-595, MS-645, MS-836
Evans, M. B., GR-54G-0022; JA-2015
Everett, R. R., JA-878
Eyges, L., TR-151; JA-1103, JA-1753,
JA-1867, JA-1935, JA-2100; MS-49,
MS-208
Falb, P. L., GR-22G-0051, GR-22G-3,
GR-22G-8; JA-1733, JA-1736,
JA-1909, JA-2060, JA-2134, JA-2145,
JA-2273; MS-703, MS-709
Falk, D. S., JA-1475
Fallo, A. J., TR-236, TR-299
Farley, B. G., TR-165; JA-1724, JA-1818;
JA-1314, JA-1518A, JA-1518B, MS-292,
MS-482A, MS-509, MS-764
Farnsworth, L. P., JA-811; JA-1352A
Farrell, L. B., JA-1887
Feldman, H., GR-46-42
Fergus, P. A., TR-199
Ferretti, A., JA-1708, JA-1720, JA-1943,
JA-2219, JA-2241A; MS-671
Feshbach, H., GR-33G-0014
Fessenden, T. J., GR-46G-2
Fidler, R. R., TR-63
Fielding, J. C., JA-2237
Fineman, J. C., GR-46-46, GR-46G-0013;
JA-1318, JA-1925; MS-544
Finn, M. C., JA-1494, JA-1710, JA-1819,
JA-1933
Fischler, S., JA-1872, JA-2253A,
JA-2326; MS-588, MS-895

Author Index

- Fitzgerald, W. D., GR-46G-4; MS-621
 Fleck, P. L., Jr., TR-41, TR-156, TR-292;
 GR-34-85, GR-34G-0005, GR-64G-4;
 JA-1824; MS-433
 Flink, A. H., GR-21G-0008
 Fogarty, J. C., GR-28G-1
 Foner, S., JA-522, JA-524, JA-650, JA-651,
 JA-772, JA-807, JA-1078, JA-1200,
 JA-1348, JA-1440, JA-1524, JA-1638,
 JA-1648, JA-2040; JA-543, JA-545,
 JA-611, JA-857, JA-1116, JA-1412A,
 JA-1429, MS-126, MS-144A, MS-257
 Fontaine, A. B., GR-25G-3, GR-25G-14;
 JA-1687, JA-1963, JA-2105
 Forgie, C. D., JA-1184, JA-1264; MS-508
 Forgie, J. W., JA-1264; MS-508
 Forney, G. D., Jr., GR-34G-10
 Fowle, E. N., TR-207, TR-209; GR-41G-0008;
 JA-1974; MS-160, MS-161
 Fox, R. H., TR-55, TR-65, TR-68, TR-69;
 JA-212
 Foyt, A. G., JA-2108
 Fraser, E. C., GR-30G-0010
 Freed, A., GR-22G-5, GR-22G-13
 Freed, C., JA-2023, JA-2283
 Freedman, J., TR-22, TR-24, TR-56,
 TR-305; JA-1400
 Freimer, M. L., GR-54G-0020; JA-1089,
 JA-1415, JA-1603A; JA-1160
 Fricker, S. J., TR-83, TR-86, TR-134,
 TR-187; JA-770, JA-949, JA-1108,
 JA-1369, JA-1388
 Fridman, H. D., GR-22G-0027, GR-22G-0039,
 GR-22G-0052
 Frischkopf, L. S., TR-165, JA-1818
 Fritsch, P. C., TR-193; JA-2156, JA-2291
 From, W. H., GR-82G-1; JA-2122
- Gaarder, N. T., GR-1964-11
 Gallager, R. G., GR-25G-0003, GR-25G-2;
 JA-1687
 Galvin, A. A., MS-159, MS-909
 Gano, J. J., JA-583, JA-649, JA-657
 Gardner, L. A., Jr., TR-219; MS-170A
 Gardner, W. L., Jr., TR-153, TR-200,
 TR-223; JA-854, JA-1808
 Gatos, H. C., TR-293; JA-561, JA-763,
 JA-783, JA-831, JA-888, JA-893, JA-894,
 JA-938, JA-998, JA-1019, JA-1293, JA-1367,
 JA-1369A, JA-1428, JA-1455, JA-1466,
 JA-1510, JA-1536, JA-1545, JA-1565A,
 JA-1601, JA-1607, JA-1614, JA-1709,
 JA-1710, JA-1735, JA-1766, JA-1797,
 JA-1812, JA-1819, JA-1863A, JA-1914,
 JA-1915, JA-1929, JA-1933, JA-1951,
 JA-2045, JA-2092, JA-2202, JA-2265;
 JA-1385, MS-24, MS-436, MS-512, MS-519,
 MS-589, MS-594
- Gay, R. E., GR-34G-0002
 Gebbie, H. A., JA-258
 Gehrels, E., TR-335; JA-1698, JA-1919
 Germann, R. W., MS-361
 Getsinger, W. J., GR-46G-3; JA-2111
 Giardino, N. A., JA-2091
 Gillis, J. E., GR-21G-0005; JA-2231
 Gilmore, J. T., Jr., TR-165; GR-51-8;
 JA-1087, JA-1818
 Gobllick, T. J., GR-34G-0005, GR-64G-4;
 JA-1243
 Gold, B., GR-34-57, GR-34-72, GR-62G-1;
 JA-1089, JA-1123, JA-1415, JA-1848,
 JA-2019, JA-2333, JA-2334; MS-513
 Gold, L., JA-9, JA-10, JA-15, JA-323,
 JA-449, JA-498, JA-549, JA-628, JA-634,
 JA-639, JA-658, JA-848, JA-849; JA-856
 Goldstein, B. S., TR-319; JA-2237, JA-2249,
 JA-2337, JA-2339
 Goldstein, M. H., JA-1640
 Goodenough, J. B., TR-40, TR-197, TR-208,
 TR-267, TR-345; JA-96, JA-100, JA-213,
 JA-315, JA-357, JA-459, JA-862, JA-891,
 JA-1210, JA-1290, JA-1447, JA-1573,
 JA-1628, JA-1721, JA-1789, JA-1826,
 JA-1973A, JA-2214; JA-866, JA-867,
 JA-869, JA-870, JA-1424, JA-1425, MS-227,
 MS-363, MS-662, MS-669, MS-940, MS-941,
 MS-943
 Granlund, J., TR-135
 Grant, C. R., JA-1984, JA-2012
 Grant, P. L., GR-25G-0010, GR-25G-0017,
 GR-25G-0024, GR-25G-0025, GR-25G-0037,
 GR-25G-8, GR-25G-9, GR-25G-11,
 GR-25G-12
 Gray, D. J., TR-9, TR-11, TR-101; JA-11
 Grayzel, A. I., GR-25G-0032; JA-979,
 JA-2233, JA-2351, JA-2355; JA-910
 Green, B. F., Jr., TR-31, TR-36, TR-49,
 TR-117, TR-306; GR-58G-0011,
 GR-58G-0024; JA-158, JA-188,
 JA-196, JA-261, JA-964, JA-1003,
 JA-1058, JA-1284, JA-1378, JA-1644,
 JA-1663, JA-1688; MS-249
 Green, M., TR-43; JA-35, JA-47, JA-113,
 JA-245, JA-1007; JA-575
 Green, P. E., Jr., TR-33, TR-234, TR-282;
 GR-34-76, GR-34-84; JA-43, JA-546, JA-647,
 JA-667, JA-707, JA-787, JA-903, JA-1243,
 JA-1263, JA-1625; MS-369A
 Greenberg, R. A., TR-198
 Greenberger, H. J., TR-299
 Greim, R. E., GR-25G-0014
 Grey, D. S., JA-2026
 Grometstein, A. A., GR-22G-0006
 Guay, C., GR-43G-1
 Guditz, E. A., GR-51G-3, GR-51G-6;
 JA-373, JA-735, JA-766, JA-1143,
 JA-1143A, JA-1691, JA-2094, JA-2185

- Guernsey, G. L., GR-43G-1; MS-694
 Gurley, B. M., JA-1443
 Gurske, V. P., TR-11; JA-11
 Gutwein, J. M., GR-36G-0045
- Hafford, D., GR-21G-6
 Hagfors, T., TR-344; JA-2349, JA-2365
 Haggarty, R. D., TR-207, TR-209;
 GR-41G-0009; MS-161
 Halberstein, J. H., GR-22G-0071, GR-22G-1
 Halpern, J., TR-249; GR-85G-0011; JA-992,
 JA-1197, JA-1642
 Hamann, D. R., JA-2282
 Hamilton, D. H., Jr., TR-183; JA-752, JA-1946
 Hanneman, R. E., JA-1933, JA-1980, JA-2045,
 JA-2202, JA-2243
 Hanson, H. P., JA-6
 Harman, T. C., JA-1359, JA-1494, JA-1542,
 JA-1766, JA-1775, JA-1828, JA-1854,
 JA-1860, JA-1922, JA-1945, JA-1970,
 JA-1991, JA-1995, JA-2014, JA-2018,
 JA-2039, JA-2067, JA-2085A, JA-2089A,
 JA-2162, JA-2163, JA-2190A, JA-2253A,
 JA-2326; MS-199, MS-200, MS-201,
 MS-268, MS-453, MS-921
 Harrington, J. V., TR-13, TR-61, TR-166;
 JA-72
 Harris, J. N., TR-206, TR-251; GR-62G-2;
 JA-180, JA-380, JA-382, JA-2317-6
 Harris, W. P., TR-24, TR-117; JA-605,
 JA-2059
 Harte, K. J., JA-1796, JA-2008; JA-1433,
 MS-630
 Harvey, E. H., GR-25G-0024
 Harvey, W. W., JA-783, JA-1019, JA-1367,
 JA-1545, JA-1739, JA-1758, JA-1812,
 JA-1873, JA-1965, JA-2086; JA-1375,
 MS-424
 Hauser, W., JA-621, JA-704, JA-884, JA-1267,
 JA-1340
 Hazel, F. P., JA-682
 Heart, F. E., GR-21G-0018, GR-21G-0031;
 JA-2291, JA-2317-4, JA-2317-11
 Heart, J. S., GR-22G-0017
 Hefni, I., GR-48G-1; JA-1786, JA-2203A;
 MS-627
 Heidler, G. R., JA-920
 Heller, G. S., GR-82-8, GR-82-9, GR-82G-0017;
 JA-620, JA-864, JA-1138, JA-1276, JA-1393,
 JA-1515, JA-1928; JA-1219, MS-135, MS-141,
 MS-144A, MS-203, MS-353, MS-479, MS-480,
 MS-628, MS-679
 Henry, J. C., JA-1992, JA-2288; JA-1423A,
 MS-172
 Hensel, S. L., TR-112, TR-144; GR-76-5;
JA-1148
 Herendeen, R., JA-2264
 Herlin, M. A., TR-194, TR-248; GR-35G-0002
- Hermann, R., JA-1589, JA-1590, JA-1590A,
 JA-1591, JA-1592, JA-1693, JA-1725,
 JA-1741, JA-1773, JA-1790; MS-28
 Herndon, T. O., TR-278; JA-1659
 Higgins, W. F., JA-2237
 Higgins, W. T., TR-343
 Hodes, L., GR-54G-0028
 Hofheimer, R. W., TR-104, TR-162; JA-58,
 JA-430, JA-813, JA-1382; JA-860
 Hofmann, E. J., GR-2G-25-4, GR-2G-25-12,
 GR-25G-0005, GR-25G-0006, GR-25G-0010,
 GR-25G-0017, GR-25G-0024, GR-25G-0025,
 GR-25G-0026, GR-25G-0028, GR-25G-0035,
 GR-25G-6; JA-1380A, MS-58
 Holsinger, J. L., GR-34G-9
 Holst, W. F., MS-61
 Honig, J. M., TR-252; JA-1520, JA-1560,
 JA-1771, JA-1777, JA-1860, JA-1885,
 JA-1922, JA-1945, JA-1970, JA-1991,
 JA-1995, JA-2014, JA-2025, JA-2039,
 JA-2067, JA-2085A, JA-2089A, JA-2163,
 JA-2253A, JA-2254, JA-2326; JA-1552
 Hoover, C. A., GR-25G-7
 Hoover, H. H., JA-1946
 Horing, N. J., MS-451
 Horowitz, R. M., TR-251; GR-52G-1
 Horstein, M., GR-34G-0006
 Howland, B., TR-275; GR-52G-6; JA-903,
 JA-1186, JA-1581A, JA-1752, JA-1874
 Howland, L. P., JA-840
 Huber, E. E., Jr., TR-280; JA-2136;
JA-870, JA-1112, JA-1486, JA-1487,
 MS-666
 Hudson, M. J., JA-1984, JA-2102
 Hurtig, C. R., TR-25
 Hurwitz, C. E., TR-320; JA-2056, JA-2293
 Hutchinson, B. H., GR-52G-0019
 Hutchinson, F. R., GR-21G-0016
 Hyde, G. M., TR-189; JA-1919
 Hynek, D. P., GR-30G-0004, GR-30G-2;
 JA-1983, JA-2087, JA-2119; MS-253A
- Ince, W. J., TR-236, TR-299; JA-1847
 Ingalls, R. P., TR-83, TR-86, TR-134,
 TR-187, TR-288; GR-33G-1; JA-770,
 JA-1108, JA-1388, JA-1448, JA-1650A,
 JA-2182; JA-1350
 Israel, D. R., JA-675
- Jacobson, L. A., TR-343; GR-312G-1
 James, J. C., JA-1448, JA-1824, JA-2182,
 JA-2300, JA-2357; JA-1350, MS-433,
 MS-521
 Jeffrey, R. C., GR-47-32; JA-613
 Jenkins, H. M., TR-36, TR-47; JA-683
 Jensen, B. A., GR-30G-0009
 Johnson, J. E., JA-946

Author Index

- Johnson, K. R., TR-195
 Johnston, R. C., GR-53G-0039, GR-53G-0044,
 GR-53G-0051; JA-921, JA-1241, JA-1730,
 JA-2178A; MS-143
 Jones, C. W., TR-19, TR-28, TR-113, TR-155;
 JA-618, JA-1506A
 Jones, E. J., GR-47-19, GR-47-29
 Jones, H. M., TR-172; GR-47-29; JA-1313A,
 JA-1673, JA-1810, JA-1834, JA-2175,
 JA-2317-3; JA-1326, MS-267
 Jones, L. E., GR-28G-3
 Jones, N. T., JA-97
 Jordan, K. L., Jr., GR-62G-5
 Josephs, J. J., JA-1372
 Jozefowicz, E., JA-2183
- Kafalas, J. A., TR-43; JA-113, JA-245,
 JA-763, JA-831, JA-1863A, JA-1951,
 JA-2045, JA-2275, JA-2328; JA-575
 Kaplan, J. I., JA-1868, JA-2052
 Kaplan, T. A., JA-1373, JA-1426A, JA-1631,
 JA-1759, JA-1816, JA-1927, JA-1939,
 JA-2272; JA-1426, MS-14, MS-133,
 MS-504, MS-665, MS-843
 Karo, A. M., JA-968, JA-1144, JA-1145,
 JA-1173, JA-1249
 Karp, D., GR-36G-1, GR-36G-4; JA-2101,
 JA-2317-4, JA-2317-9
 Kasnitz, H. L., GR-312G-0001, GR-321G-0001-1
 Kaufman, L., JA-892; JA-850
 Keeping, K. J., GR-42G-0001, GR-46-43,
 GR-46G-0005, GR-46G-0008, GR-46G-4;
 MS-621
 Keilson J., JA-13, JA-36, JA-37, JA-42
 Kelley, P. L., TR-261; GR-81G-1; JA-2000,
 JA-2062, JA-2277
 Kelley, W. F., GR-41G-0004
 Kelly, E. J., Jr., TR-123, TR-152, TR-157,
 TR-158, TR-159, TR-172, TR-339;
 GR-47-16, GR-47-30, GR-47G-0013,
 GR-47G-0025, GR-1964-15; JA-1194,
 JA-1615, JA-1700, JA-1976; MS-160
 Kelly, J. P., TR-183
 Kelly, J. R., Jr., JA-1856
 Kemball, C., GR-34-72
 Kennedy, R. S., JA-2297
 Keren, D., GR-312G-12, GR-47G-0011,
 GR-47G-0018
 Kern, S., JA-2179, JA-2264; MS-679
 Kernan, W. C., JA-1878
 Kessler, A. H., GR-46G-1, GR-46G-3
 Kessler, J. A., JA-1398, JA-1609
 Kessler, M. M., TR-56; GR-4G-0002;
 JA-1514, JA-1880B; MS-242
 Key, E. L., TR-50, TR-207, TR-209; JA-231;
 MS-161
- Keyes, R. J., GR-85G-0004, GR-85G-0008;
 JA-137, JA-161, JA-650, JA-651,
 JA-1660, JA-1692, JA-1949, JA-1984,
 JA-2032-II, JA-2102, JA-2246, JA-2302;
 JA-544, JA-545, MS-675, MS-735
 King, T. F., JA-1352A
 Kingston, R. H., GR-21G-0016; JA-61, JA-87,
 JA-97, JA-131, JA-169, JA-230, JA-237,
 JA-413, JA-494, JA-906, JA-941, JA-1074,
 JA-1243, JA-1321, JA-1467, JA-1904,
 JA-2198, JA-2227; JA-602, JA-1478, MS-676
 Kinney, J. R., GR-55G-0030, GR-55G-0037;
 JA-780, JA-1240, JA-1254, JA-1555,
 JA-1682, JA-1802, JA-1960, JA-2216
 Kip, A. F., JA-208
 Kirk, C. W., Jr., JA-1767
 Kirwan, J. J., MS-344
 Kleiner, W. H., GR-81G-0026, GR-81G-0030;
 JA-18, JA-160, JA-272, JA-1216, JA-1281,
 JA-1638, JA-1746, JA-1795, JA-2025,
 JA-2260; JA-602, MS-455, MS-958
 Kleinrock, L., TR-325; GR-51G-0018; JA-1049
 Klem, L., GR-58-6; JA-1058, JA-1702
 Knudsen, H. K., JA-2169, JA-2310
 Kohlenberg, A., JA-22
 Kohler, H. M., TR-178; GR-45-42; JA-1091
 Kolesar, D. F., TR-303; JA-2188
 Kolm, C. R., TR-150; JA-839, JA-927,
 JA-1124
 Kolm, H. H., JA-522, JA-601, JA-650,
 JA-651, JA-807, JA-1078, JA-1354,
 JA-1577, JA-1712; JA-543, JA-545,
JA-569, JA-602, JA-611, JA-863
 Konkle, K. H., JA-2022; MS-510
 Koster, G. F., JA-21, JA-124, JA-148,
 JA-159, JA-218, JA-227, JA-265
 Kostriza, J. A., GR-1964-9
 Kraft, L. G., Jr., JA-1243, JA-1593,
 JA-1919, JA-2007A; JA-1128, MS-10A,
 MS-253A
 Krag, W. E., JA-403, JA-1269A, JA-1944,
 JA-2032-II, JA-2131, JA-2268; MS-735
 Kraus, W. L., JA-1032
 Kravitz, L. C., JA-1138
 Kresa, K., GR-312G-5, GR-312G-13
 Kuhn, B. G., TR-346; GR-21G-0011,
 GR-21G-0015; JA-2064
 Kuhnle, A. O., TR-328
 Kulin, S. A., JA-119, JA-120, JA-416,
 JA-433, JA-839, JA-927; JA-850
 Kunnmann, W., JA-1943, JA-2137, JA-2219,
 JA-2241A; MS-350, MS-671
 Kurtz, A. D., TR-85; JA-119, JA-120,
 JA-416, JA-433
 Kushner, H. J., GR-22G-0011, GR-22G-0043,
 GR-22G-0055, GR-22G-2; JA-1817,
 JA-1947, JA-1982, JA-2057, JA-2123,
 JA-2126, JA-2148; MS-396, MS-549,
 MS-707, MS-732

- Labitt, B. H., GR-42G-2; MS-524
 Labitt, M., TR-248, TR-307, TR-342;
 GR-35G-0002
 Labonte, R. C., GR-43-2
 Ladd, D. W., Jr., JA-1072
 Laemmel, A., GR-54G-0021
 LaFleur, W. J., JA-1812; MS-512, MS-589
 Lambie, T. J., GR-75G-0005
 LaPage, B. F., TR-170, TR-338; GR-315G-3,
 GR-61G-2; JA-2317-10
 Larson, E. G., JA-1462
 Laughery, K., MS-249
 Lavine, M. C., TR-293; JA-888, JA-894,
 JA-946, JA-1369A, JA-1428, JA-1455,
 JA-1466, JA-1510, JA-1534, JA-1607,
 JA-1614, JA-1709, JA-1710, JA-1766,
 JA-1797, JA-1819, JA-1863A, JA-1951,
 JA-2092; JA-1385, MS-24, MS-436,
 MS-594
 Lax, B., TR-65, TR-89, TR-136, TR-249;
 GR-8G-0012, GR-81G-0031, GR-84-4;
 JA-91, JA-92, JA-118, JA-150, JA-168,
 JA-208, JA-209, JA-299, JA-308, JA-342,
 JA-343, JA-394, JA-405, JA-448,
 JA-516, JA-517, JA-521, JA-650,
 JA-651, JA-669, JA-702, JA-743,
 JA-791, JA-843, JA-875, JA-960,
 JA-1085, JA-1086, JA-1149, JA-1216,
 JA-1276, JA-1293, JA-1409, JA-1410,
 JA-1431, JA-1490, JA-1504, JA-1516,
 JA-1521, JA-1538, JA-1549, JA-1556,
 JA-1605, JA-1629, JA-1643, JA-1660,
 JA-1661, JA-1692, JA-1750, JA-1780,
 JA-1794, JA-1884, JA-1901, JA-1941,
 JA-1998, JA-2001, JA-2032-I, JA-2032-II,
 JA-2035, JA-2037, JA-2043, JA-2065,
 JA-2152, JA-2232, JA-2246, JA-2247,
 JA-2258; JA-317, JA-542, JA-545, JA-994,
JA-1034, JA-1035, JA-1451, MS-22, MS-45,
 MS-180, MS-205, MS-217, MS-269, MS-270,
 MS-441, MS-456, MS-457, MS-685, MS-735,
 MS-779B
 Laynor, J. E., GR-51G-8; JA-2022
 Lebow, I. L., TR-27, TR-32, TR-139, TR-251;
 GR-62G-4; JA-7, JA-14, JA-49, JA-178,
 JA-1657, JA-2113, JA-2297, JA-2317-6;
JA-1119, JA-1530
 Lehrer, S. S., MS-660
 Leibowitz, J. R., JA-854
 Leon, B. J., GR-46-39; JA-424
 Leonhard, J., TR-51; JA-141, JA-594, JA-634
 Lephakis, A. J., TR-21
 Lerner, E. C., TR-123
 Lerner, R. M., GR-25G-0022, GR-36-18,
 GR-36-41, GR-36-42, GR-36G-0047;
 JA-881, JA-903, JA-1201, JA-1253,
 JA-1397, JA-1561, JA-1898, JA-1958,
 JA-1986, JA-2165, JA-2204; JA-912,
 MS-60, MS-67, MS-831
 Levin, J. J., TR-182; JA-1132, JA-1381,
 JA-1501, JA-1578A, JA-1765A, JA-1897A,
 JA-1950, JA-1985, JA-2033, JA-2075
 Levin, M. J., TR-339; GR-34G-3, GR-34G-5,
 GR-34G-6, GR-34G-7, GR-34G-8; JA-2070,
 JA-2083, JA-2292; MS-704
 Levine, F., GR-22G-0018
 Liaudansky, L. H., TR-117; JA-262
 Lindenlaub, J. C., GR-41G-6, GR-47G-2
 Lipson, H., JA-545
 Locke, R. V., Jr., GR-36G-1; JA-1537,
 JA-1946, JA-2101
 Loeb, A. L., JA-213, JA-909
 Loewenthal, M., TR-132
 Logan, B. F., JA-210
 Lomont, J. S., TR-310, TR-326; JA-2124,
 JA-2147, JA-2240
 Long, W. H., TR-251
 Longaker, P. R., JA-2041A, JA-2306; MS-676
 Loomis, H. H., GR-51G-0017
 Lovenvirth, D. L., GR-22G-0012; MS-61
 Lowen, J., TR-43; JA-348, JA-1371
 Lubell, D., GR-22G-0061
 Lynn, V. L., TR-56, TR-330, TR-331;
 GR-42G-0001, GR-46G-4; JA-2252,
 JA-2262; MS-240, MS-527, MS-621,
 MS-896
 Lyon, E. F., TR-337; GR-52G-0017
 Lyons, D. H., TR-152, TR-172; GR-47-16,
 GR-47-25; JA-1631, JA-1816, JA-1927,
 JA-1939, JA-1976, JA-2272; MS-133,
 MS-504
 MacComb, R. W., GR-312G-12
 MacGillivray, A. D., GR-1964-1
 Mack, C. L., Jr., GR-36G-2, GR-36G-7;
 JA-352, JA-594, JA-2317-5
 MacLellan, D. C., JA-1738, JA-1946,
 JA-2317-7, JA-2317-8
 Macrakis, M. S., TR-284, TR-287;
 GR-25G-0013, GR-25G-0015, GR-25G-0033,
 GR-25G-13; JA-1627; MS-845
 Madle, E. J., TR-206
 Magee, E. J., GR-22G-0046
 Malmstrom, L. D., JA-2227
 Malone, M. H., GR-315G-1
 Maltese, A. W., GR-76G-0003; JA-1703
 Manasse, R., GR-32-24, GR-32-25,
 GR-32-26, GR-312-12-1, GR-312-23,
 GR-312-26; JA-881, JA-903, JA-1198
 Maple, T. G., JA-258
 Margolin, J., TR-22
 Mariano, A. N., JA-1797, JA-1852, JA-1980,
 JA-2045, JA-2220, JA-2275
 Marill, M. M., TR-241
 Martel, C. S., Jr., JA-716, JA-902
 Martinson, R. M., GR-21G-0009, GR-21G-0021
 Mason, S. J., TR-25

Author Index

- Mason, W. C., TR-186, TR-187; GR-33G-1; JA-1108, JA-1388
- Mathiasen, A. A., GR-21G-0028, GR-21G-1, GR-21G-3, GR-21G-4; JA-2317-4, JA-2317-11
- Mattuck, R. D., TR-51; JA-141
- Mavroides, J. G., JA-394, JA-791, JA-1504, JA-1660, JA-1661, JA-1692, JA-1794, JA-1854, JA-1901, JA-2001, JA-2037, JA-2194; MS-453, MS-457, MS-685
- Max, J., GR-28G-1, GR-36G-4; JA-1307A, JA-1805, JA-2165
- Maxwell, E., TR-169; JA-424, JA-1008, JA-1064, JA-1517, JA-1788, JA-1972, JA-2098, JA-2103, JA-2170; JA-1015, MS-112, MS-881
- May, W. G., JA-2359
- Mayer, A., JA-1348; JA-1412A
- Mayer, D. F., GR-47G-0016
- McBride, W. F., JA-1757
- McCoy, R. T., TR-63
- McCue, J. J. G., TR-16, TR-119, TR-179, TR-285; JA-1727, JA-1858, JA-2055, JA-2109, JA-2266, JA-2286; JA-913, JA-1163, MS-162, MS-762
- McCully, G. R., GR-47G-0001, GR-47G-0004
- McCurley, E. P., TR-202; GR-46G-0009; JA-1376, JA-1729, JA-2013; MS-178
- McElwain, C. K., GR-54G-0022; JA-2015
- McFadden, J. A., JA-1161
- McGill, W. J., TR-36
- McGinn, J. W., Jr., TR-204; GR-45-34, GR-45-34-1, GR-47-30, GR-47G-0007, GR-47G-0015, GR-47G-4, GR-47G-7; JA-950, MS-343
- McGowan, J., JA-1719
- McHugh, P. G., JA-2113
- McKee, D. A., TR-56, TR-171
- McMahon, R. E., TR-27, TR-32, TR-100, TR-120, TR-133, TR-210, TR-300; GR-312G-0006; JA-49, JA-178, JA-298, JA-566, JA-1456, JA-1653; JA-1174
- McNamara, F. L., TR-120, TR-133; GR-2G-24-83; JA-23, JA-180, JA-566A
- McWhorter, A. L., TR-80; GR-85G-0002, GR-85G-0003, GR-85G-0006, GR-85G-0007; JA-169, JA-494, JA-817, JA-896, JA-959, JA-1218, JA-1629, JA-1669, JA-2032-I, JA-2032-II, JA-2056, JA-2167, JA-2282, JA-2293, JA-2359; JA-570, JA-602, JA-995, MS-26, MS-82, MS-685, MS-735
- Meeks, M. L., TR-330; JA-2009, JA-2252, JA-2288, JA-2348, JA-2349
- Mellen, G. L., TR-91, TR-183; JA-351
- Melngailis, I., JA-1894, JA-1981, JA-2139, JA-2149, JA-2184, JA-2197
- Menna, A. A., JA-1457; JA-1392A
- Menyuk, N., TR-40; JA-93, JA-100, JA-270, JA-1076, JA-1522, JA-1570, JA-1599, JA-1697, JA-1721, JA-1723, JA-1816, JA-1927, JA-2271; JA-871, JA-1113, MS-14, MS-133, MS-351, MS-361, MS-362
- Mercurio, J. F., Jr., JA-999
- Meservey, R. H., JA-2234, JA-2235; MS-551
- Metzger, P. H., JA-1155
- Metzner, A. W. K., GR-312G-3, GR-312G-9
- Meyer, J. H., GR-32G-2; JA-886
- Meyer, J. W., TR-24; GR-4G-0007, GR-4G-0010; JA-817, JA-896, JA-1002, JA-1662, JA-2061A, JA-2102; JA-933, MS-135, MS-240, MS-285, MS-344, MS-527
- Middleton, D., TR-35; JA-66, JA-1610
- Mikulski, J. J., GR-47-29, GR-47-33, GR-47-38; JA-1634, JA-1959
- Miller, G. A., TR-60; JA-228, JA-482
- Miller, S. J., TR-155; GR-46-48, GR-46G-0007, GR-46G-0012; JA-1652
- Millett, W. E., JA-1788
- Mills, E. D., GR-82G-1; JA-2224
- Mindel, J., JA-1908
- Minsky, M., GR-34-55, GR-54-4, GR-54G-0027, GR-54G-0029; MS-84
- Mitchell, J. L., JA-659
- Mitchell, R. R., GR-58G-0018; JA-1822
- Mitchell, R. T., GR-58G-0018; JA-262, JA-1822
- Molnar, C. E., JA-1640
- Momo, L. R., JA-1348, JA-1440, JA-1524; JA-1412A, MS-144A
- Montgomery, D. B., JA-1577
- Moody, P. L., JA-1134, JA-1428, JA-1614
- Moon, R. M., Jr., TR-312; JA-1115
- Moore, C. B., JA-1032
- Morey, K. H., TR-263; GR-21G-0007; JA-2064, JA-2079
- Moriarty, B. J., GR-25G-15, GR-25G-19, GR-65G-7
- Morrisson, N. J., Jr., TR-251
- Morrow, W. E., Jr., TR-11, TR-91, TR-183; GR-36-25, GR-36G-1, GR-36G-3, GR-36G-4; JA-11, JA-351, JA-594, JA-1738, JA-1861, JA-1946, JA-2101, JA-2317-2, JA-2317-7
- Moses, H. E., TR-310, TR-322, TR-326; GR-37G-1; JA-2124, JA-2147, JA-2240, JA-2316, JA-2323
- Mott-Smith, H. M., JA-1, JA-2
- Muehe, C. E., Jr., TR-155; GR-46-45, GR-46-47, GR-46-50, GR-46G-0003, GR-46G-2; JA-1097, JA-1768, JA-1862; MS-641
- Mueser, G. E., GR-58-2, GR-58G-0013; JA-1374, JA-1399, JA-1718
- Muldoon, R. A., GR-71G-3, GR-71G-4; MS-774

- Murphy, E. B., JA-1189, JA-1379, JA-2084;
MS-181, MS-272, MS-475
- Murphy, E. L., TR-266, TR-294, TR-329;
JA-1959
- Nagy, F., Jr., TR-251; GR-52-4, GR-52G-3;
JA-2317-4, JA-2317-6
- Naka, F. R., TR-4, TR-24, TR-72, TR-178;
GR-45-42; JA-1091
- Neisser, U., GR-34-75, GR-54-9, GR-54-10,
GR-54-19, GR-54G-0025; JA-1528,
JA-1619, JA-1830A, JA-1877, JA-1896,
JA-2024, JA-2166A, JA-2199
- Nelson, C. B., GR-46G-0002
- Nelson, D. M., GR-34-57
- Neumann, L., JA-1209
- Neustadter, S. F., JA-91, JA-97, JA-230,
JA-369
- Nicely, P. E., JA-228, JA-482
- Nichols, B. E., TR-203; GR-36-44; JA-594,
JA-1356A, JA-1861, JA-1946, JA-2317-9
- Niemann, F. L., TR-63, TR-138
- Nilo, S. C., JA-1183
- Niro, L., TR-259; MS-229
- Nonnemaker, G. M., JA-67
- Norris, R. C., TR-279; GR-22G-0035
- Nuttall, J. A., JA-2013
- Nye, S. D., JA-2265
- O'Brien, D. F., JA-1640
- O'Connor, J. R., GR-26G-1; JA-1813A, JA-1888,
JA-2036, JA-2042, JA-2143A, JA-2312,
JA-2372
- Ogg, A. P., GR-22G-0004, GR-22G-0038
- Olsen, K. H., JA-659
- Olson, A. R., JA-1144
- O'Neil, W. A., MS-272
- Ornstein, S. M., GR-21G-0003-1, GR-21G-0003-2,
GR-21G-0022, GR-51G-8
- Osgood, S. W., JA-122
- Overhage, C. F. J., JA-1190, JA-2317-1
- Owens, E. B., TR-265; GR-83G-0031; JA-1266,
JA-1494, JA-1525, JA-1704, JA-1835,
JA-1855, JA-2091; MS-241
- Paladino, A. E., JA-2326
- Pannell, J. H., TR-349; JA-2144
- Papian, W. N., JA-146, JA-774; JA-78
- Pappas, C. A., JA-1685, JA-2084; MS-475
- Parker, A. C., TR-120, TR-130; JA-2113
- Parker, D., GR-25G-0002
- Parsons, A., JA-1698; MS-178
- Pascalar, H. G., GR-312G-0002, GR-48-6,
GR-48-7, GR-48-8; JA-519
- Patterson, L. D., TR-74
- Paul, W., JA-347, JA-387, JA-495, JA-496,
JA-633, JA-793, JA-845, JA-1006,
JA-1025; JA-545
- Pease, J., TR-224
- Pease, R. L., TR-167, TR-184, TR-224,
TR-227, TR-264, TR-316, TR-348;
GR-43G-1; JA-1670
- Perkins, C. W., JA-2175, JA-2317-3
- Perry, K. E., TR-104, TR-162, TR-189,
TR-212; GR-24-54, GR-32-105, GR-52-7,
GR-52G-0018, GR-62G-2; JA-855,
JA-1745, JA-2079; JA-860, JA-1317,
MS-448
- Peters, E. J., GR-21G-0006, GR-21G-0017
- Petersen, W. A., GR-25G-0001, GR-25G-0017
- Peterson, L. G., GR-312G-4, GR-312G-8
- Petriceks, J., GR-36G-4
- Pettengill, G. H., GR-30G-0003, GR-30G-0005;
JA-903, JA-1243, JA-1563, JA-1597,
JA-1625, JA-1748, JA-1832A, JA-1919,
JA-1992, JA-1994, JA-2096, JA-2192;
JA-1128, JA-1423A, MS-172, MS-487
- Pfeiffer, R., GR-25G-0012
- Phelan, R. J., Jr., JA-2246, JA-2290
- Phillips, J. H., TR-169; JA-1008
- Phillips, M. L., TR-93; JA-456
- Pike, E. W., TR-161; JA-950
- Pike, H. A., JA-2206
- Pineo, V. C., GR-30G-0003; JA-1593, JA-1784,
JA-1983, JA-2087, JA-2119; MS-10A,
MS-253A
- Pippert, G. F., TR-266; MS-163
- Pitcher, T. S., TR-92; GR-34-57; JA-152,
JA-338, JA-528, JA-534, JA-976, JA-1737,
JA-1895, JA-1978, JA-1997, JA-2044,
JA-2159, JA-2216, JA-2228
- Popp, F. G., TR-106; GR-62G-6
- Portmann, P. A., TR-84; JA-320
- Poté, A. J., TR-51, TR-91; JA-141, JA-351
- Pratt, G. W., Jr., JA-33, JA-236, JA-369,
JA-447, JA-681, JA-773, JA-835, JA-1338,
JA-1497, JA-1707; JA-569, JA-602,
JA-838, JA-1036, JA-1180
- Pratt, H. J., Jr., JA-2151
- Price, G. H., GR-312G-10
- Price, R., TR-34, TR-75, TR-234, TR-258;
GR-34G-0003, GR-34G-4, GR-64G-5;
JA-267, JA-275, JA-617, JA-667, JA-686,
JA-707, JA-787, JA-881, JA-943, JA-1243,
JA-1597, JA-1919, JA-1969, JA-2245,
JA-2274, JA-2346; JA-914, MS-444
- Proakis, J. G., GR-64G-1, GR-64G-3;
JA-1990, JA-2245
- Prosser, R. T., TR-217; GR-22G-0014,
GR-22G-0034, GR-22G-0041, GR-55G-0033;
JA-1749, JA-1881, JA-2006, JA-2021A,
JA-2099, JA-2120; JA-1507
- Provencher, W. C., GR-36G-1; JA-2101
- Puff, R. D., GR-81G-0022; JA-1770

Author Index

- Quelle, F. W., Jr., TR-295
 Quinn, W. T., TR-83, TR-86
 Quist, T. M., JA-1949, JA-1984, JA-2032-II,
 JA-2043, JA-2131, JA-2155, JA-2294,
 JA-2302; MS-675, MS-735
- Rabinowitz, S. J., TR-192
 Rader, C. M., JA-2334
 Radford, W. H., TR-91; JA-351, JA-2317-1;
 MS-25
 Raffel, J. I., TR-278; GR-50-1; JA-1659,
 JA-2324; JA-1164, MS-680, MS-952
 Rainville, L. P., GR-33-9; JA-978; JA-1655;
 JA-1104
 Rankin, J. B., TR-343; MS-892
 Rauch, C. J., GR-1964-10; JA-1059, JA-1515,
 JA-1793, JA-1878; JA-1033, MS-69,
 MS-203, MS-454
 Reaves, J. H., GR-51G-1, GR-51G-5
 Rediker, R. H., TR-137; JA-7, JA-404, JA-730,
 JA-992, JA-996, JA-1197, JA-1218,
 JA-1371, JA-1629, JA-1642, JA-1669,
 JA-1785, JA-1894, JA-1981, JA-1984,
 JA-2032-II, JA-2043, JA-2102, JA-2149,
 JA-2155, JA-2158, JA-2184, JA-2197,
 JA-2246, JA-2280, JA-2290, JA-2295;
 JA-995, MS-26, MS-735, MS-752, MS-910
 Reed, I. S., TR-2, TR-12, TR-14, TR-15,
 TR-20, TR-44, TR-73, TR-139, TR-141,
 TR-152, TR-157, TR-158, TR-159, TR-172;
 GR-47-24, GR-47-29, GR-47-32, GR-47-35;
 JA-7, JA-410, JA-1194, JA-1211, JA-1247;
 JA-1119
 Reed, T. B., TR-73, TR-157; JA-1678, JA-1744,
 JA-1852, JA-1863A, JA-1914, JA-1937,
 JA-2049, JA-2112, JA-2161; MS-512, MS-589,
 MS-594, MS-881, MS-904
 Regillo, D. A., JA-1616A
 Reiffen, B., TR-231; GR-25G-0021,
 GR-25G-0021-1, GR-25G-1, GR-25G-16,
 GR-25G-17, GR-25G-20, GR-65G-1,
 GR-65G-6, GR-65G-8; JA-1397, JA-1809,
 JA-2074, JA-2180, JA-2261, JA-2317-5;
 MS-173
 Reinecke, H., Jr., TR-226
 Reiner, D., GR-22G-0025
 Renhult, W. B., TR-107
 Resnick, I. L., JA-53
 Rey, T. J., TR-174, TR-181, TR-188;
 GR-47G-0019, GR-47G-0023; JA-1001,
 JA-1242
 Rheinstein, J., TR-273, TR-349; GR-22G-16;
 JA-2130A
 Ricardi, L. J., TR-142, TR-170, TR-185,
 TR-225; GR-31-148, GR-315G-1, GR-315G-2,
 GR-61G-1; JA-2173, JA-2255, JA-2317-10;
 MS-229, MS-437
 Rich, A. M., JA-2061A
- Richardson, R. E., TR-154, TR-178; GR-45-42;
 JA-2207; JA-1091, MS-281
 Ridgley, D. H., JA-2136; MS-666
 Ring, R. M., TR-38, TR-190; JA-216
 Roberts, L. G., TR-315; GR-51G-0021; MS-32
 Robinson, P. H., JA-35, JA-47, JA-561,
 JA-893, JA-1007; JA-575
 Roche, J. F., TR-81, TR-84; JA-320, JA-344,
 JA-978, JA-1655, JA-1861; JA-1104
 Roddy, J. T., JA-1852; MS-512, MS-589
 Rogers, D. B., TR-269; JA-1973A, JA-2117A,
 JA-2137; MS-351, MS-362, MS-943
 Rogers, T. F., TR-3; JA-23, JA-46, JA-1946,
 JA-2317-2
 Root, H. G., JA-978; JA-1104
 Root, W. L., TR-92, TR-103, TR-158, TR-159;
 GR-47-16; JA-152, JA-338, JA-1194,
 JA-1615, JA-1680, JA-1976
 Rosen, P., JA-2113
 Rosenberg, A. J., JA-428, JA-561, JA-716,
 JA-893, JA-894, JA-902, JA-946,
 JA-1055, JA-1359, JA-1457, JA-1502A,
 JA-1534, JA-1535, JA-1567, JA-1594,
 JA-1674; JA-1391, JA-1392A, MS-519
 Rosenblum, E. S., GR-82G-0021; JA-118,
 JA-1722, JA-2005, JA-2238
 Ross, P. M., TR-60
 Roth, L. M., JA-92, JA-299, JA-448, JA-449,
 JA-628, JA-875, JA-960, JA-1085,
 JA-1086, JA-1149, JA-1216, JA-1281,
 JA-1302, JA-1410, JA-1547, JA-1833,
 JA-2193, JA-2260; JA-1034, JA-1035,
 JA-1036, MS-94, MS-211
 Rotstein, J., TR-223
 Rubin, M. D., TR-99
 Rudolph, H. W., Jr., GR-312G-12
 Ryan, C. G., GR-51G-2
- Saharian, A., GR-48-9
 Sakrison, D. J., TR-289
 Salerno, J., TR-82
 Saliga, R. J., GR-21G-0003-1
 Sallen, R. P., TR-50; JA-231
 Salz, E., JA-532
 Sandler, S. S., TR-205; JA-1485
 Sandy, G. F., JA-657
 Sarles, F. W., Jr., GR-53G-0052
 Savell, R. E., GR-51-8, GR-51G-0016
 Sawyer, D. E., TR-137; JA-730, JA-996,
 JA-1265
 Sayre, K. M., GR-22G-7
 Schafer, B. F., TR-283
 Schlant, R. C., JA-1032
 Schlickman, J. J., JA-2227
 Schmidt, W. G., TR-177; GR-25G-0007,
 GR-25G-0008, GR-25G-0017, GR-25G-0019,
 GR-25G-5, GR-25G-10; JA-1971; MS-173,
 MS-560

- Schneider, D. I., JA-2012; MS-381
 Schneider, H., GR-47G-6
 Schneider, M. I., TR-270; GR-1964-11
 Schneider, W. P., TR-42
 Schowengerdt, E. E., GR-21G-0004, GR-21G-0013, GR-21G-0016
 Schwarz, M. E., Jr., GR-43G-1
 Schwartz, S., TR-98; JA-514
 Schweppe, F. C., GR-22G-0021, GR-22G-0061, GR-22G-6, GR-22G-10, GR-22G-15, GR-28G-3, GR-1964-2, GR-1964-4; JA-2148, JA-2331, JA-2362
 Scouler, W. J., JA-2223, JA-2224, JA-2225
 Seavey, M. H., Jr., TR-143, TR-239; GR-82G-0029; JA-507, JA-642, JA-1022, JA-1105; JA-861, JA-1422
 Sebring, P. B., TR-139; GR-30-0002, GR-30G-0011; JA-1423A
 Seidman, T. I., GR-55G-1
 Selfridge, O. G., TR-41; GR-34-43, GR-34-57; JA-1619, JA-1825, JA-1856; MS-84, MS-470, MS-531, MS-583, MS-626
 Sferrino, V. J., TR-120, TR-177, TR-247; JA-1301
 Shader, F. L., TR-23; JA-68
 Shapiro, I. I., TR-129; JA-1313A, JA-1673, JA-1810, JA-1834, JA-2007A, JA-2128, JA-2168, JA-2175, JA-2317-3, JA-2317-7; MS-267
 Shatz, S. S., GR-52G-0011, GR-52G-0013, GR-52G-0020, GR-52G-4-1, GR-52G-4-11, GR-52G-5; JA-1897A, JA-2033
 Sheehan, J. A., GR-41G-0011; MS-160
 Sheff, S., JA-938, JA-1377, JA-1545
 Sheftman, F. I., GR-46G-0001, GR-46G-0012
 Sherman, A. M., TR-265; GR-36G-0047
 Sherman, H., GR-25G-0004, GR-25G-16; JA-1032, JA-1397, JA-1602, JA-1612, JA-1613, JA-1776, JA-2180, JA-2261
 Siebert, W. M., JA-591
 Siegel, M., TR-228, TR-236, TR-299
 Silva, R. R., GR-30G-0007
 Silver, R., JA-1243
 Silverman, E., MS-644
 Silverman, R. A., TR-39, TR-48; JA-86, JA-132, JA-156
 Sirrine, R. C., JA-2296
 Sittler, R. W., GR-22G-0024; JA-592
 Sklar, J. R., TR-236; GR-1964-2; JA-2362
 Skolnik, M., TR-82; GR-31-148; JA-724, JA-897; JA-1324
 Slagle, J. R., GR-5G-0001, GR-55G-3; JA-1905
 Slater, J. C., JA-21, JA-124, JA-148, JA-218
 Slattery, R. E., TR-146; GR-46-37; JA-1772, JA-1891, JA-1967, JA-2078
 Sloane, E. A., TR-82
 Smith, A. F., TR-349; GR-1964-1, GR-1964-3
 Smith, D. O., TR-197; GR-50-1, GR-53G-0059; JA-576, JA-1210, JA-1288, JA-1620, JA-1796, JA-1798, JA-1799, JA-1910, JA-2008, JA-2066, JA-2129; JA-865, JA-868, JA-870, JA-871, JA-1111, JA-1112, JA-1386, JA-1486, JA-1487, MS-127, MS-132, MS-238, MS-356, MS-913A, MS-918
 Smith, J. E. K., GR-58-6; JA-1058, JA-1637, JA-1681, JA-1702
 Smith, L. B., JA-373
 Smith, M. H., Jr., JA-3
 Smith, W. B., TR-292; GR-34G-0002; JA-1107, JA-1243, JA-1916, JA-1919, JA-2053, JA-2064, JA-2317-4
 Smith, W. W., JA-2142
 Smullyan, R. M., GR-54-5
 Sobolewski, J., GR-21G-0013
 Sohigian, M. D., TR-330, TR-331; JA-2252, JA-2262; MS-896
 Sokal, N. O., JA-53, JA-67
 Solomon, G., GR-47-24, GR-47-34, GR-47-37, GR-47G-0020, GR-47G-0022, GR-47G-1; JA-1211, JA-1716, JA-1815
 Soohoo, R. F., GR-53G-0063, GR-53G-0064, GR-53G-0065; JA-1646; JA-1421, JA-1472, MS-40, MS-121, MS-210
 Spaeth, D. A., JA-46
 Spoerri, S., TR-228, TR-236, TR-299
 Sponsler, G. C., TR-23, TR-58, TR-64, TR-114; JA-16, JA-68, JA-121, JA-162, JA-210, JA-443
 Staaf, L., GR-25G-6
 Stacey, J. M., TR-99, TR-178; GR-45-42; JA-1091
 Stark, L., TR-26, TR-59; JA-64
 Statz, H., JA-21
 Steinmetz, C. M., TR-253; MS-240
 Stevens, R. R., JA-2078
 Stevenson, D. T., JA-137, JA-161
 Stickler, J. J., JA-1515, JA-1928; MS-141, MS-203, MS-353, MS-479, MS-480, MS-679
 Stockebrand, T. C., JA-1039
 Stone, M. L., TR-83, TR-86, TR-134, TR-187; JA-770, JA-1108, JA-1388, JA-1448, JA-2218; JA-1350
 Stopek, S., JA-2295
 Stowe, A. N., JA-1726, JA-2059
 Strassberg, D. D., GR-51-10
 Strauss, A. J., GR-83G-0031; JA-1494, JA-1502A, JA-1674, JA-1675, JA-1766, JA-1828, JA-1854, JA-1864, JA-1887, JA-2068, JA-2184, JA-2270, JA-2285, JA-2328; MS-199, MS-200, MS-201, MS-241, MS-268, MS-453
 Strongin, M., JA-2098, JA-2103, JA-2170, JA-2243; MS-881
 Strum, P. D., JA-896
 Stutt, C. A., TR-83, TR-86, TR-134
 Sullivan, L. J., MS-279

Author Index

- Sullivan, N. A., JA-2303
 Sutherland, I. E., TR-296
 Swift, D. W., TR-187; JA-1388
- Tancrell, R. H., TR-210; GR-52G-0014;
 JA-1456; MS-124
 Tannenwald, P. E., TR-70, TR-71, TR-143;
 GR-82G-0017; JA-48, JA-273, JA-278,
 JA-365, JA-507, JA-642, JA-906,
 JA-1022, JA-1105, JA-1298, JA-1677,
 JA-2141, JA-2153, JA-2264; JA-636,
JA-861, JA-1325, JA-1384, MS-237,
 MS-674
 Tarbox, E. F., GR-312G-0004
 Tarmy, B. M., JA-2014, JA-2039, JA-2067,
 JA-2254
 Tausner, M. R., GR-312G-13
 Taylor, N. H., TR-102; JA-462, JA-480;
JA-475
 Teachman, A. E., JA-752
 Teele, J. H., TR-228, TR-236; GR-41G-1
 Temme, D. H., TR-228, TR-236, TR-299;
 GR-41G-0014
 Teoste, R., GR-21G-0029, GR-21G-8001;
 JA-1853, JA-2189
 Terzian, J., TR-104
 Thaxter, J. B., GR-82-8; JA-1393, JA-1719;
 MS-141, MS-144A
 Theriault, J. P., JA-1664A, JA-1795; MS-209,
 MS-455
 Thomas, J. E., Jr., JA-404
 Thompson, E. D., JA-1116
 Tierney, J., JA-2019
 Torgerson, W. S., JA-1714; MS-91
 Towle, D. M., MS-344
 Trask, F. P., JA-2140
 Tritter, A. L., JA-1089
 Tuomi, D., JA-251
 Turin, G. L., TR-57, TR-116; GR-34G-2;
 JA-580, JA-2274; JA-434
 Turnbull, T. P., JA-1457, JA-1907, JA-1954;
 MS-181, MS-307, MS-599
- Ullman, H. A., TR-120
 Underwood, D. I., TR-237
 Uskavitch, C. W., GR-22G-0009, GR-22G-0053
- Vance, P. R., JA-879
 Vanderburgh, A., Jr., JA-1057
 VanderSchuur, R. E., JA-1974; MS-548B
 VanTrees, H. L., TR-246, TR-301; GR-65G-3,
 GR-65G-5; JA-2106, JA-2226
 Vibrans, G. E., TR-268, TR-308; MS-828
 Vierstra, A., TR-257
 Villars, F., GR-33G-0014; JA-104, JA-397
 Vinal, F. E., JA-315
- Wagner, C. A., TR-41, TR-292; GR-34G-0002;
 JA-1579, JA-1647, JA-1831, JA-1917,
 JA-2038; MS-567
 Waldron, P., JA-1946, JA-2317-8
 Wan, F. Y. M., GR-71G-1-I, GR-71G-1-II,
 GR-71G-1-III; MS-447A
 Wang, S. C., JA-770
 Ward, J. H. R., JA-2295
 Ward, W. W., TR-56, TR-107; MS-86, MS-86A
 Warekois, E. P., JA-927, JA-1155, JA-1607,
 JA-1709, JA-1797, JA-2045, JA-2220;
JA-1430, MS-24, MS-307
 Warren, E., JA-1107
 Warschauer, D. M., JA-347, JA-495, JA-496,
 JA-633, JA-793, JA-845, JA-1006,
 JA-1025; JA-545
 Waugh, N. C., JA-1146, JA-1511, JA-1637,
 JA-1667
 Weaver, W., Jr., GR-75G-4
 Weber, R., JA-1677, JA-2141, JA-2276
 Weene, P., GR-54-10; JA-1528, JA-1896
 Weinreb, S., JA-2288, JA-2348
 Weiss, E., GR-55-22, GR-44G-0024,
 GR-55G-0028, GR-55G-0035, GR-55G-2,
 GR-66G-1; JA-983, JA-1779, JA-1803,
 JA-1870, JA-2250
 Weiss, G. P., JA-1620, JA-2066; JA-865,
JA-1486, JA-1487, MS-127, MS-356,
 MS-918
 Weiss, H. G., TR-24, TR-72; JA-2048;
 MS-328, MS-702
 Weisskopf, V. F., JA-104, JA-397
 Welch, J. D., JA-2249, JA-2337, JA-2339
 Welles, B. B., TR-4
 Wells, W. I., GR-22G-0029, GR-22G-0036
 Welti, G. R., JA-210
 Wereb, J. A., Jr., JA-810, JA-1093
 Whipple, E., JA-1462, JA-1783; MS-662
 White, B. W., JA-532, JA-964, JA-1009,
 JA-1399, JA-1711, JA-1717, JA-1763A,
 JA-1769A, JA-1875; MS-89
 White, R. M., MS-144A
 Whitehorn, R. M., TR-76
 Whitmer, R. M., TR-1
 Wickham, D. G., TR-164; JA-862, JA-1044,
 JA-1290, JA-1462, JA-1522, JA-1720,
 JA-1723; JA-867
 Widnall, W. S., GR-34G-1
 Widrow, B., JA-145
 Wiesner, J. B., TR-91; JA-351
 Wiggert, D., GR-25G-17
 Wilber, L. C., GR-21G-0013, GR-21G-0016
 Williams, J. B., Jr., TR-241; GR-22G-0019,
 GR-22G-0042
 Willmann, P. A., GR-312-17, GR-312G-5
 Wilson, E. A., TR-117; JA-3
 Wilson, F. A., TR-186; GR-33G-0015,
 GR-312G-7
 Winett, J. M., TR-283; JA-1924

Author Index

- Wishner, R. P., GR-47G-0026, GR-47G-0027,
GR-47G-2; JA-1851
- Wold, A., JA-768, JA-814, JA-1077, JA-1106,
JA-1454, JA-1697, JA-1708, JA-1720,
JA-1721, JA-1783, JA-1943, JA-1973A,
JA-2116, JA-2117A, JA-2137, JA-2219;
JA-869, JA-1425, MS-350, MS-351, MS-361,
MS-362, MS-480, MS-662, MS-671, MS-679,
MS-943
- Wolf, A. K., TR-306; GR-58G-0024; JA-964;
MS-249
- Wolf, E. W., TR-67; JA-1072
- Wood, P. E., Jr., TR-318; JA-1948, JA-2209
- Wood, R. V., Jr., TR-104
- Woodward, C. E., JA-1443
- Worrell, F. T., TR-298; JA-2004, JA-2031,
JA-2133, JA-2157, JA-2171, JA-2176,
JA-2206
- Wright, G. B., JA-1490, JA-1549, JA-1828,
JA-1854, JA-2131, JA-2225; MS-199,
MS-269
- Yakutis, A. J., TR-100
- Yntema, D. B., GR-58-2, GR-58G-0013; JA-1374,
JA-1714, JA-1718, JA-2034, JA-2140
- Yost, R. C., TR-321; JA-1974; MS-548B
- Yudkin, H. L., GR-25G-0012, GR-25G-4;
MS-56, MS-173
- Zeiger, H. J., TR-136; JA-118, JA-150,
JA-168, JA-448, JA-516, JA-517, JA-669,
JA-1059, JA-1515, JA-1660, JA-1692,
JA-1928, JA-1944, JA-2032-I, JA-2032-II,
JA-2131, JA-2264, JA-2307; JA-1033,
MS-203, MS-479, MS-674, MS-735
- Zieman, H. E., TR-237; JA-1640
- Zier, R., JA-1868
- Zierler, N., TR-95; GR-34-71; JA-264,
JA-581, JA-823, JA-939, JA-983, JA-1489,
JA-1626
- Zimmerman, M. D., TR-153, TR-200
- Zraket, C. A., JA-878
- Zwerdling, S., GR-84-4; JA-650, JA-651,
JA-702, JA-875, JA-938, JA-960, JA-1085,
JA-1086, JA-1149, JA-1216, JA-1377,
JA-1431, JA-1516, JA-1521, JA-1664A,
JA-1795; JA-544, JA-545, JA-958,
JA-1012A, JA-1034, JA-1035, MS-209,
MS-455

SUBJECT INDEX

Underlined JA numbers indicate Meeting Speeches.
Since 1960, Meeting Speeches have been assigned
MS numbers.

ACOUSTICS

JA-1622, JA-1848, JA-1920, JA-2073,
JA-2333, JA-2359; MS-508, MS-513

ADAPTIVE CONTROL

TR-258, TR-281, TR-289; GR-22G-2,
GR-22G-4, GR-22G-9, GR-47G-2,
GR-1964-4; JA-1909, JA-1923,
JA-1947, JA-1969, JA-2057, JA-2060,
JA-2123, JA-2169; JA-1160, MS-444,
MS-531, MS-549, MS-703, MS-709,
MS-732, MS-770; Bib-5

ADDER

GR-25G-0007, GR-25G-0017, GR-25G-11

ADSORPTION

JA-1520, JA-1560

AIR DEFENSE

JA-1190

AIR NAVIGATION

Q-1

AIRBORNE EARLY WARNING

TR-194

ALARM SYSTEMS

TR-24, TR-72

ALGEBRA

JA-1881, JA-1897A

ALGORITHMS

TR-270; GR-22G-0002, GR-25G-17

ALKALINE EARTH FLUORIDES

JA-2042

ALLOYS

JA-459, JA-1006, JA-2170; JA-838

ALUMINUM

Superconductivity
JA-1781; MS-301, MS-551

ALUMINUM OXIDES

JA-1704; MS-126

AMPLIFIERS

GR-47G-0014, GR-62G-2; JA-2079

AGC

JA-2142

Broadband

JA-1008, JA-2111

UHF

TR-169; MS-178

ANALOG MODULATION

GR-25G-20

ANELEX

GR-21G-0017, GR-312G-12

ANISOTROPIC MATERIALS

JA-621, JA-704, JA-884, JA-1620,
JA-1759, JA-1970, JA-1979, JA-1991,
JA-1995, JA-2014, JA-2041A, JA-2067,
JA-2069, JA-2129, JA-2254; JA-1111,
JA-1486, JA-1487, MS-106, MS-132,
MS-238, MS-445, MS-660; Bib-24

ANTENNAS

1000-wavelength

GR-46G-4; MS-621

Coupling

JA-1383, JA-1420

Design

TR-135

Dipole

JA-1890, JA-1952

Feed

GR-46G-0005

Linear array

GR-46G-0001; JA-1671, JA-2255;
MS-437

Measurements

TR-86

Millstone Hill

TR-193; GR-315-3, GR-315G-4

Monopulse feed

MS-229

Near-field

GR-315G-1; JA-2173

Subject Index

ANTENNAS (Continued)

- Parabolic
 - TR-167, TR-185, TR-224;
GR-42G-0001, GR-71G-5
- Paraboloidal
 - TR-184, TR-205; GR-315G-2,
GR-315G-2, GR-315G-4, GR-61G-3,
GR-71G-1, II, III; JA-1485
- Phase shifting
 - GR-42G-2
- Polarization
 - TR-138; GR-46G-0008, GR-61G-2;
JA-1634
- Radiation patterns
 - TR-167, TR-184, TR-224, TR-324.
- Satellite
 - TR-347
- Slot
 - TR-192; JA-1383
- Steering
 - JA-1841, JA-1841A
- Stress analysis
 - JA-1102
- Test facility
 - GR-75G-0005; JA-1703
- Torus
 - TR-185
- Unipole
 - TR-51; JA-141
- Vibration
 - GR-75-4
- West Ford
 - TR-259; GR-61G-2

ANTIFERROMAGNETIC RESONANCE

- TR-302; JA-772, JA-2040; MS-126,
MS-480

ANTIFERROMAGNETISM

- TR-254; JA-6, JA-236, JA-835, JA-1338,
JA-1707, JA-1886, JA-1913, JA-1927;
MS-141, MS-202, MS-211, MS-353,
MS-363, MS-461A, MS-628, MS-679

ANTIMONY

- Oxidation
 - JA-1457

ARGON

- GR-46G-2

ARIES

- MS-61

ARSENIC

- JA-113

ARTIFICIAL INTELLIGENCE

- GR-34-55
- U.S.S.R.
 - Bib-8

ATMOSPHERE

- Absorption
 - GR-82G-0021; JA-1722

ATTITUDE CONTROL

- GR-22G-9; Bib-23

AUDITORY PERCEPTION

- JA-1009, JA-1264

AUDITORY THRESHOLD

- JA-3, JA-122, JA-510

AURORA

- Effect on UHF signals
 - JA-1448; JA-1350
- Radar observations
 - JA-770

BALLISTIC MISSILE TRAJECTORIES

- Radar observations
 - TR-129

BASEBALL PROGRAM

- TR-306; MS-249

BATS

- TR-285; GR-41G-3, GR-47G-0010;
JA-1400, JA-1727, JA-1858, JA-2016,
JA-2055, JA-2109, JA-2115, JA-2266;
MS-162, MS-581

BEARINGS

- TR-198; JA-1616A

BINARY SEQUENCES

- TR-95; GR-22G-0036

BINARY SIGNALS

- TR-258

BIRDS

- Radar return
 - GR-45-42; JA-1091

BISMUTH

- Crystal growth
 - MS-895
- Cyclotron absorption
 - JA-405, JA-448, JA-651
- Magnetic properties
 - JA-1660, JA-1661, JA-2001, JA-2037,
JA-2085A, JA-2253A; MS-307
- Single crystals
 - JA-2326

BLOOD FLOW

- JA-1602

BOLTZMANN EQUATION

- JA-1546A

- BOMARC
Guidance
JA-1072
- BOOLEAN FUNCTIONS
TR-2, TR-12, TR-217; GR-47-32
- BOOLEAN MATRICES
GR-22G-0014; JA-1657; JA-1507
- CADMIUM ARSENIDE
JA-1359
- CADMIUM MERCURY TELLURIDE
JA-1854; MS-453
- CADMIUM TIN ARSENIDE
JA-1502
- CALCIUM FLUORIDE
JA-1813A, JA-2239, JA-2302, JA-2312
- CALCULUS
JA-1905
- CALLISCOPE
TR-212
- CALORIMETER
JA-1719
- CAMERAS
Oscilloscope
GR-21G-0004
Speed control
JA-1584
- CASSEGRAINIAN SYSTEMS
TR-324; GR-46-43
- CASSIOPEIA A
Absorption lines
JA-2348
- CATARACTS
JA-949
- CATERPILLAR PROJECT
TR-86
- CATHODE-RAY TUBES
TR-58, TR-64, TR-212; JA-162, JA-855
- CERENKOV RADIATION
GR-25G-0033
- CFAR
TR-189; GR-47-29, GR-47-33
- CHARACTRON
TR-117
- CHARGED PARTICLES
JA-9, JA-10, JA-13, JA-15, JA-18
- CHEMICAL ELEMENTS
Properties
Bib-10
Spectrographic lines
TR-265
- CHROMITES
JA-1783, JA-2122
- CHROMIUM OXIDES
JA-2040; MS-126; Q-10
- CHROMIUM SULFIDES
MS-361
- CIRCUITS
Slicer
JA-67
- CIRCULATION
JA-1776
- CLUTTER
TR-8, TR-178; GR-312-12
- CLUTTER MAPPER
ACM-52
TR-206
- COAXIAL LINES
GR-46G-0002, GR-46G-0010; JA-951
- COAXIAL SWITCH
TR-170
- COBALT
TR-312; JA-1677
- COBALT FERRITE
JA-278, JA-1708, JA-1943; JA-857,
MS-350
- COBALT OXIDE
JA-1338; JA-1180
- COBALT VANADATE
JA-1522
- COBI
TR-263; GR-25G-0035, GR-25G-6,
GR-25G-8, GR-25G-9, GR-25G-11,
GR-25G-12
- CODING
Algebraic
GR-52G-4-I, GR-52G-4-II; JA-916
Binary
GR-47G-0006
Bose-Chaudhuri
JA-1716
Compression
GR-55G-0028; JA-1803
Cosets
GR-55G-0027
Cyclic
GR-52G-0011

Subject Index

CODING (Continued)

Encoding and decoding

TR-231; GR-22G-0029, GR-25G-0021,
GR-25G-0026, GR-25G-2, GR-25G-3,
GR-25G-17, GR-34-57, GR-34-72,
GR-312G-1, GR-42G-1, GR-47-24,
GR-47-34, GR-47-35, GR-47G-0020,
GR-47G-0022, GR-47G-1, GR-55G-2,
GR-62G-5, GR-65G-6; JA-1815,
JA-2250; JA-916, JA-1317, MS-381

Error correcting

TR-39, TR-44, TR-48; GR-25G-2,
GR-25G-3, GR-55-22; JA-86, JA-156,
JA-1489, JA-1626, JA-1687, JA-1971,
JA-2012, JA-2015, JA-2105; JA-1317,
MS-381, MS-448, MS-560

Macro

GR-22G-0017

Millstone radar

GR-30G-0009

Morse

JA-1089, JA-1123, JA-2015

Polynomial

JA-1211

Radar ranging

TR-318

Reed-Muller

GR-55G-0035; JA-1779

Sequential

GR-62G-4, GR-62G-5; JA-1809,
JA-2113

Three-phase

GR-47-28

COILS

VHF

GR-47G-0001, GR-47G-0004; JA-522,
JA-807

COMMAND SYSTEMS

GR-22G-0071, GR-22G-7

COMMUNICATION CENTER

GR-4G-0002

COMMUNICATION SATELLITES

TR-277; GR-21G-2, GR-21G-3, GR-21G-4,
GR-21G-6, GR-21G-7, GR-25G-0013,
GR-30G-2, GR-31G-148, GR-315G-5;
JA-1627, JA-1946, JA-2237, JA-2261;
JA-1324

Dispensing

GR-36G-3

Visibility

GR-36G-7

COMMUNICATIONS

TR-7, TR-33, TR-34, TR-35, TR-41,
TR-57, TR-116, TR-183, TR-234,
TR-258, TR-263, TR-275, TR-325;
GR-22G-0025, GR-25G-20, GR-65G-3;
JA-2297

Additive noise

JA-1680

AN/GSC-4

GR-25G-0007

Coherent

GR-64G-1; JA-2226, JA-2245

Digital systems

JA-59; JA-1530, MS-67

Diversity techniques

JA-1027, JA-1537; JA-1104

F-distribution

GR-64G-5

Feedback

GR-62G-6, GR-65G-5

Frequency-modulated

GR-36G-0045, GR-64G-3

Graphic

TR-296

Linear systems

GR-34G-7, GR-34G-8, GR-34G-10

Models

GR-22G-7

Multipath

JA-707, JA-787, JA-1263, JA-1962,
JA-1969; JA-434, MS-444

Optical

JA-2076

Orbital scatter

TR-292; JA-617

Power division

TR-301; JA-2226

Radio

GR-3G-0003

Random procedures

GR-22G-0041; JA-2006, JA-2021A

Theory

JA-1898

Time-frequency

JA-267

Time-varying

MS-369A, MS-396

UHF

TR-91, GR-21G-0011; JA-351,
JA-352, JA-594

UHF-SSB

JA-1356A

U.S.S.R.

GR-34-76, GR-34G-12

VHF

TR-21

Voice

GR-65G-1

COMPUTERS

Air defense center

JA-583

Analog-to-digital conversion

GR-33G-1; JA-2046A

Anelex printout

GR-21G-0017

COMPUTERS (Continued)

Applications
 MS-590, MS-867
 Average response
 JA-1640
 CDC 160-A
 GR-62G-3
 CG-24
 TR-139; JA-1119
 Digital
 TR-12, TR-15, TR-102, TR-141,
 TR-177; GR-58G-0011; JA-613,
 JA-1284
 Digital analog generators
 TR-162; JA-860
 Equipment
 JA-180
 FX-1
 TR-278; GR-51G-8; MS-510
 IBM-709
 GR-21G-0001
 IBM-7090
 GR-58G-0024
 L-1
 GR-51G-0012
 Logical design
 TR-191; JA-1645, JA-1665; JA-1119,
JA-1139
 Programs
 TR-241, TR-283, TR-306, TR-313;
 GR-21G-0003, GR-21G-0026,
 GR-21G-0027, GR-21G-1, GR-21G-2,
 GR-21G-3, GR-21G-4, GR-21G-5,
 GR-21G-6, GR-21G-7, GR-21G-8,
 GR-22G-0006, GR-22G-0009,
 GR-22G-0014, GR-22G-0042;
 GR-33G-1, GR-33G-0005,
 GR-312G-13, GR-43G-1, GR-5G-0001,
 GR-51G-0018, GR-54G-0020,
 GR-58G-0024, GR-64G-5; JA-380,
 JA-675, JA-1336, JA-1378, JA-1688,
 JA-1848, JA-2026; MS-249, MS-508,
 MS-513
 Random number generator
 JA-1058
 Redundant
 JA-1853
 Reliability
 TR-102; GR-21G-0029, GR-21G-8001
 Techniques
 TR-165; JA-682, JA-1493, JA-1924,
 JA-2022
 Theory
 JA-1825, JA-1856, JA-2024
 Threshold device
 JA-1948
 Turing machines
 GR-54G-0027, GR-54G-0029

TX-0
 TR-221; JA-659
 TX-2
 GR-51G-0016, GR-51G-0017,
 GR-51G-0018, GR-51G-1
 Whirlwind I
 JA-1398

CONE-SPHERES

Drag
 GR-22G-5
 Radar scattering
 TR-349

CONTROL SYSTEMS

Feedback
 MS-615
 Linear
 GR-22G-4, GR-22G-15; JA-1923,
 JA-2126, JA-2134, JA-2273; MS-396
 Manual
 TR-111
 Nonlinear
 JA-2145; GR-1964-12
 Optimal
 JA-1909, JA-1923, JA-1947, JA-1982,
 JA-2060, JA-2123, JA-2145, JA-2169;
 MS-703, MS-704, MS-707, MS-709,
 MS-710, MS-732, MS-770; Bib-5
 Stochastic
 JA-2148; MS-170A

COPPER BONDING

MS-181

CORRELATION DETECTORS

JA-647

CORRELATION TECHNIQUES

TR-7, TR-21, TR-33; GR-34G-4; JA-686,
 JA-707, JA-747, JA-787, JA-1805,
 JA-2251; JA-912

CORUNDUM

JA-2271

COUNTER CHANGE, PROJECT

TR-24

COUNTERMEASURES

TR-41, TR-103

CRYOGENICS (see also Helium, Liquid)

JA-2061A, JA-2098, JA-2298, JA-2326;
 MS-69, MS-82

CRYOSAR

GR-53G-0039, GR-53G-0044, GR-53G-0051;
 JA-1218, JA-1669, JA-1730; MS-143

CRYOSTATS

JA-496; JA-1015

Subject Index

CRYOTRON
JA-287

CRYSTAL GROWTH
JA-1744, JA-1852, JA-2241; MS-588,
MS-671, MS-895

CRYSTAL STRUCTURE
TR-267, TR-268, TR-269, TR-295,
TR-345; JA-909, JA-1753, JA-1767,
JA-1771, JA-1797, JA-1826, JA-1864,
JA-1867, JA-1915, JA-2214, JA-2271

CYCLOTRON RESONANCE
TR-136, TR-249; JA-113, JA-118,
JA-150, JA-168, JA-498, JA-516, JA-517,
JA-651, JA-669, JA-1059, JA-1504,
JA-1515, JA-1692, JA-1780, JA-1793,
JA-2035; JA-542, JA-543, JA-544, JA-545,
JA-1033, JA-1451, MS-217, MS-454

CYLINDERS
Drag
GR-22G-13
Back scattering
GR-1964-14

DAMP
GR-46G-0005

DATA PROCESSING
TR-237, TR-283; GR-22G-0019,
GR-22G-0020, GR-22G-0021, GR-34G-0002,
GR-312G-12; JA-1226
Neuro-electric
MS-391

DATA REDUCTION
TR-241; GR-22G-0019, GR-22G-0020

DATA STORAGE
TR-73; GR-22G-0053

DATA TRANSMISSION
TR-263, TR-346; GR-22G-10, GR-24G-54,
GR-2G-25-4, GR-2G-25-12, GR-25G-0004,
GR-25G-0005, GR-25G-0006, GR-25G-0007,
GR-25G-0017, GR-25G-0019, GR-25G-0026,
GR-25G-0035, GR-25G-0037, GR-25G-5,
GR-25G-8, GR-25G-11, GR-25G-12,
GR-25G-14, GR-25G-19, GR-34G-0006,
GR-312G-1, GR-55G-0028; JA-1307,
JA-1687, JA-1963, JA-1971, JA-2064,
JA-2105; MS-59, MS-60, MS-61, MS-173,
MS-560

DATA TRANSMITTER
JA-11

DECISION MAKING
JA-66, JA-1714, JA-1877

DEEP SPACE PROBES
MS-240

DELAY LINES
TR-3, TR-22, TR-42, TR-179;
GR-25G-19, GR-65G-4; JA-1186, JA-1397;
JA-913

DEMODULATOR
GR-65G-3

DENSITOMETER
GR-46G-0012; Q-9

DETECTION THEORY
JA-937

DI-PULSE LOGIC
GR-52-7

DIAMOND
JA-1793; MS-454; Bib-17

DIAMOND CIRCUIT
TR-300

DICON
TR-251, TR-275; GR-52G-1

DIELECTRICS
JA-1475, JA-2041A; Q-6

DIFFERENCE EQUATIONS
GR-47-37

DIFFERENTIAL EQUATIONS
GR-22G-3

DIGITAL SYSTEMS
GR-21G-0021, GR-25G-0037

DIODES
TR-137, TR-226; GR-36G-5, GR-47G-3,
GR-48-6, GR-81G-0031; JA-97, JA-169,
JA-730, JA-849, JA-992, JA-996,
JA-1197, JA-1265, JA-1371, JA-1642,
JA-1894, JA-2023, JA-2155, JA-2206
Infrared
JA-2102
Junction
JA-1786
Tunnel
GR-52G-0018, GR-81G-0031; JA-1653,
JA-1847

DIPLEXERS
TR-255, GR-1964-9; MS-892

DIPOLES, ORBITING
TR-292; GR-36G-2; JA-1738, JA-1834,
JA-2007A, JA-2175

DIRECTIONAL COUPLERS
TR-19

Subject Index

DISPLAY SYSTEMS

TR-4, TR-31, TR-36, TR-49, TR-212,
TR-223, TR-237; GR-41G-0004,
GR-51G-0016; JA-854, JA-897, JA-1372,
JA-1399, JA-1945

DOPPLER RADAR

TR-154, TR-189; JA-1561

DUPLEXERS

TR-113; GR-315G-3, GR-46-40,
GR-46G-2; JA-618, JA-1768

DYNAMICS

GR-22G-15, GR-71G-1, I, II, III, GR-71G-2,
GR-71G-3, GR-71G-5, GR-75-4; JA-1381,
JA-1501, JA-1765A; JA-850

ECHO

Orbit
JA-1673

ECHO I

GR-30G-2; MS-267

EDUCATION

JA-1941

ELASTIC SUSPENSIONS

JA-2183

ELECTRIC FIELDS

Particle dynamics
JA-9, JA-13

ELECTROENCEPHALOGRAM

TR-165; JA-1818

ELECTROFORMING

JA-1379

ELECTROLUMINESCENCE

JA-2131

ELECTROLYTIC CELL

JA-938

ELECTROLYTIC POLARIZATION

JA-1873

ELECTROMAGNETIC FIELDS

TR-310

ELECTROMAGNETIC WAVES

Scattering
TR-273, TR-292; GR-25G-0002,
GR-312G-0002, GR-312G-4,
GR-1964-1, GR-1964-3, GR-1964-14;
JA-104, JA-132, JA-344, JA-574,
JA-621, JA-2041A, JA-2087,
JA-2130A; Bib-24

ELECTROMAGNETS

JA-1477, JA-1577, JA-1712

ELECTROMETER

JA-601

ELECTRON BEAMS

TR-308; JA-1; MS-828

ELECTRON DENSITY

Measurement
TR-248, TR-307; GR-3G-0002,
GR-30G-0014

ELECTRON GAS

JA-1475, JA-2100

ELECTRON TRAJECTORIES

JA-162, JA-210

ELECTRON TRANSPORT THEORY

JA-1542; MS-451, MS-449

ELECTRON TUBES

High power
TR-257; MS-694
Transmit-receive
TR-155; GR-46-37, GR-46-45

ELECTRONS

Narrow band
MS-940, MS-941

ENCAPSULATION

JA-2084

ENERGY CONVERSION

TR-304; JA-1922, JA-1945, JA-1970,
JA-1991, JA-1995, JA-2014, JA-2018,
JA-2067, JA-2163, JA-2190A, JA-2253A;
MS-921

ENERGY DENSITIES

JA-2147

EPITAXIAL GROWTH

JA-2295

EREKTOR SUBRACK KIT

JA-1757

ERROR COUNTER

GR-25G-6; JA-1380A

ERROR STATISTICS

GR-2G-25-4, GR-2G-25-12, GR-25G-0005,
GR-25G-0006, GR-25G-0007,
GR-25G-0010, GR-25G-0024,
GR-25G-0025, GR-25G-0026,
GR-25G-0028, GR-25G-0037, GR-25-14,
GR-25G-15, GR-47-35, GR-1964-11;
JA-1948, JA-1969, JA-2084, JA-2105;
MS-58, MS-66, MS-444

Subject Index

ERRORS

Automatic detection
GR-25G-5, GR-34G-3

EUROPIUM MONOXIDE

Q-10

FACSIMILE SYSTEMS

TR-76

FERRIMAGNETIC MATERIALS

JA-1643; JA-867

FERRITE

Cobalt

JA-1708; JA-857, MS-350

Manganese

TR-71; JA-365, JA-507

Nickel-iron

JA-1076, JA-1454; JA-1113

Preparation

JA-1462

Properties

JA-48, JA-93, JA-273, JA-278,
JA-308, JA-418, JA-512, JA-864,
JA-1267

FERRITE CORE INDUCTORS

GR-52G-6

FERRITE DEVICES

TR-55, TR-65, TR-69, TR-70, TR-89,
TR-164, TR-176, TR-210, TR-247;
JA-92, JA-212, JA-342, JA-343, JA-521,
JA-620, JA-843, JA-890, JA-951,
JA-1393, JA-1456, JA-1495; JA-317,
JA-1174, MS-180

FERROMAGNETIC MATERIALS

TR-40, TR-166, TR-254; JA-21, JA-96,
JA-100, JA-1886, JA-1913, JA-2008;
JA-856, MS-202, MS-461A

Surfaces

GR-53G-0052, GR-53G-0063

FERROMAGNETIC RESONANCE

TR-7, TR-143; JA-365, JA-642, JA-906,
JA-1022; JA-861, JA-1422, MS-210

FILTERS

TR-181; GR-22G-0024; JA-580, JA-1193;
JA-1161

Adaptive

JA-2057

Autocovariance

GR-31-150

Band-pass

GR-36-18; JA-881, JA-2204

Band separation

GR-25G-0032; JA-910

Matched

TR-156; GR-25G-0001, GR-34G-3,
GR-41G-0002; JA-1397, JA-1561,
JA-1582, JA-2083

RC

TR-50; JA-231

FLEXOWRITERS

GR-21G-0001

FLIP-FLOPS

JA-813, JA-298

FLUIDS

Turbulence

GR-312G-9

FLUORESCENCE

JA-2306

FLUTTAR

TR-82

FOAMED MATERIALS

MS-272, MS-475A

FOURIER TRANSFORM

TR-310, GR-36G-4, GR-37G-1,
GR-41G-0011; JA-446, JA-488

FREQUENCY CONTROL

TR-188, GR-41G-0008; JA-1001

FREQUENCY MODULATION

Measurement

TR-16

FREQUENCY MULTIPLIERS

GR-36G-5, GR-47G-5, GR-47G-0012,
GR-48-8; JA-1903, JA-2351, JA-2355

FREQUENCY STANDARD

GR-34G-85

FUNCTIONS

GR-22G-0046, GR-22G-0051, GR-22G-0054,
GR-25G-1, GR-34G-1, GR-55G-0037,
GR-55G-3; JA-1240, JA-1733, JA-1802

Ambiguity

JA-2070

Autocorrelation

JA-43

Band-limited

JA-22

Bessel

JA-658

Eigenfunctions

JA-33

Gaussian signals

JA-2331

Jost

JA-2316

FUNCTIONS (Continued)

Legendre
JA-121
Pulse transmission
GR-34G-8
Random
JA-152, JA-2216
Sin x/x
TR-195
Sine and cosine
GR-47G-4; JA-380
Spectra
GR-34G-5
Wiener integral
GR-55G-1

FURNACE

JA-1134

GALLIUM

Analysis
JA-1266
Surfaces
JA-2188

GALLIUM ANTIMONIDE

GR-83G-0031; JA-927, JA-1149, JA-2028

GALLIUM ARSENIDE

JA-1371, JA-1614, JA-1642, JA-1675,
JA-1949, JA-1984, JA-2032-I, II, JA-2131,
JA-2155, JA-2227, JA-2302, JA-2337,
JA-2339; MS-241, MS-675, MS-735,
MS-752

GALVANO-THERMOMAGNETIC PHENOMENA

JA-1922, JA-1945, JA-1970, JA-1991,
JA-1995, JA-2014, JA-2039, JA-2067,
JA-2089A; JA-1422

GAMES THEORY

TR-279

GARNETS

TR-267; GR-53G-0065

GAS ADSORPTION

TR-252; JA-716, JA-1885, JA-2025

GAS ANALYSIS

Q-5

GASES

Chemical kinetics
GR-35G-2; JA-902

GAUGES

JA-2157, JA-2176

GAUSSIAN PROCESSES

TR-157; JA-943, JA-976, JA-1997,
JA-2331

GENDARE

TR-241, GR-22G-0019, GR-22G-0020,
GR-22G-0042

GEODESICS

JA-1589, JA-1590, JA-1590A; MS-28

GEOMETRY

JA-1591, JA-1592, JA-1725, JA-1773

GERMANE

JA-35, JA-47

GERMANIUM

Arsenic removal

TR-43; JA-113

Crystal growth

JA-433

Cyclotron resonance

JA-113, JA-118, JA-150, JA-168,
JA-517

Dislocations

TR-85; JA-119, JA-120

Electrons

JA-1410, JA-1547

Fine structure

JA-1216

Galvanomagnetic effects

TR-115; JA-394, JA-449, JA-552,
JA-628, JA-1019, JA-1545, JA-1739,
JA-2268; MS-424

Hall effect

JA-323, JA-387, JA-403, JA-628

High temperature effects

MS-436

Impurities

JA-119, JA-243, JA-245, JA-811,
JA-1872; MS-26

Krypton adsorption

JA-1055

Magnetoresistance

JA-791, JA-1605

Noise effects

TR-80; JA-258

Optical properties

JA-793, JA-960, JA-1281

Oxide films

JA-1377

Properties

GR-85G-0008; JA-137, JA-251,
JA-702, JA-783, JA-888, JA-1367

Quantum effects

JA-1928; MS-203, MS-479

Surface effects

TR-80; JA-161, JA-237, JA-404,
JA-413, JA-494, JA-561, JA-893,
JA-998; JA-570, JA-575, JA-1375

Subject Index

GERMANIUM (Continued)

Transitions

JA-1085; JA-1035

X-ray analysis

JA-927

GERMANIUM OXIDES

JA-1007

GERMANIUM-IODIDE SOLUTION

JA-1812

GERMANIUM-SILICON ALLOYS

Optical properties

JA-1006

GRAPHITE

Cyclotron resonance

JA-669

Magnetoreflexion

JA-2194, JA-2208

GROUP II-VI COMPOUNDS

JA-1797, JA-2220

GROUP III-V COMPOUNDS

TR-150; JA-839, JA-1396A, JA-1607,
JA-1709, JA-1735, JA-1819, JA-1933;
JA-1391, MS-24, MS-270

HEATING

With photons

JA-2112

HELICAL CONDUCTORS

TR-26

HELICAL DENSITY WAVES

TR-320

HELIUM, LIQUID

GR-46-46, GR-1964-10; JA-1064, JA-1517,
JA-1558, JA-1636, JA-1788, JA-1878,
JA-1921, JA-1925, JA-1993, JA-2013,
JA-2090, JA-2097, JA-2223; JA-1015,
JA-1496, JA-1564, MS-69, MS-78, MS-543,
MS-544

HIGH PRESSURE TECHNIQUES

JA-347, JA-495, JA-633, JA-1025

HUMAN ENGINEERING

TR-4; JA-188, JA-196, JA-482, JA-605,
JA-1146, JA-1184, JA-2034, JA-2166A

HYBRIDS

JA-1506A

HYDROGEN

Microwave spectra

JA-2348

HYDROGEN FLUORIDE

JA-968

HYDROXYL GROUP

Microwave spectra

JA-2348

Radio observation

JA-2287, JA-2288

HYPERSONIC FLOW

JA-2078

HYPERVELOCITY PELLETS

Wakes

TR-248, TR-307, TR-342

HYPERVELOCITY RE-ENTRY

MS-163

HYPERVELOCITY SPHERES

Radiation

TR-290; JA-1772, JA-1967

HYPERVELOCITY VEHICLES

Scattering

GR-312G-0002; JA-1891

IMAGE TUBES

GR-85G-0004

IMPEDANCE

JA-1986, JA-2304

INDIUM

Analysis

JA-946, JA-1525

INDIUM ANTIMONIDE

JA-650, JA-651, JA-894, JA-927
JA-1428, JA-1455, JA-1466, JA-1510,
JA-1534, JA-1535, JA-1549, JA-1567,
JA-1629, JA-1692, JA-1710, JA-1766,
JA-1795, JA-1819, JA-1864, JA-1894,
JA-1929, JA-2045, JA-2139, JA-2149,
JA-2202, JA-2246, JA-2265, JA-2290;
JA-1385, JA-1392A, MS-209, MS-455;
Bib-3

INDIUM ARSENIDE

JA-650, JA-651, JA-1494, JA-2139,
JA-2197, JA-2184

INDIUM TELLURIDE

JA-2243

INDUCTANCE BRIDGE

JA-1581A

INDUCTANCE COILS

JA-1874

- INERTIAL NAVIGATION
 - TR-289
- INFORMATION RETRIEVAL
 - GR-4G-0002; JA-1514, JA-1880B; MS-242
- INFORMATION THEORY
 - JA-2274; JA-1530, MS-831
 - U.S.S.R.
 - JA-546; MS-84
- INFRARED CELL
 - JA-2189
- INFRARED DETECTORS
 - JA-1808; JA-544
- INFRARED SPECTROSCOPY
 - JA-1461
- INTERFEROMETERS
 - TR-16; GR-312-23; JA-1698, JA-2306
- INTERMETALLIC COMPOUNDS
 - JA-763, JA-839, JA-892, JA-998,
 - JA-1607; JA-1391, JA-1392A; MS-269
- IONIZATION GAUGE
 - Tests
 - TR-298
- IONOSPHERE
 - E-layer
 - GR-33G-0014; JA-1961
 - Earth-cavity resonances
 - JA-1647, JA-1917, JA-2038; MS-567
 - Electron density
 - GR-3G-0002
 - F-region
 - TR-274; GR-30G-0014; JA-1966;
 - MS-253A, MS-836
 - Perturbations
 - JA-2218
 - Reflection
 - TR-1
 - Scattering
 - TR-1, TR-81, TR-274; JA-344,
 - JA-1593, JA-1784, JA-1983, JA-2119;
 - MS-10A, MS-253A, MS-836
 - Temperature
 - JA-2299
 - Transmission
 - TR-93, TR-168; JA-1107, JA-1916
- IRON, ATOMIC
 - JA-773
- IRON NITRIDES
 - JA-1697; JA-1425
- IRON SULFIDE
 - MS-363
- IRON WHISKERS
 - MS-599
- JAMMING
 - TR-41, TR-103
- KEPLERIAN ORBITS
 - GR-22G-0038
- KERSTON THEORY
 - JA-1599
- KINEPLEX
 - GR-25G-0017, GR-25G-0024
- KLYSTRON OSCILLATORS
 - GR-46-42
- KLYSTRONS
 - TR-227, TR-316, GR-48-9; JA-2203A;
 - MS-627
 - Frequency control
 - TR-253
 - Multicavity
 - TR-264, TR-348; GR-43G-1; JA-1670;
 - JA-1326
- KRYPTON
 - Adsorption
 - JA-428, JA-1055
- LAMINATES
 - Elasticity
 - GR-25G-0015
- LANTHANUM COMPOUNDS
 - JA-814; JA-869
- LAPLACE INTEGRALS
 - JA-381
- LASERS
 - JA-1984, JA-2043, JA-2065, JA-2152,
 - JA-2167, JA-2246, JA-2247, JA-2258,
 - JA-2280, JA-2290, JA-2294, JA-2302,
 - JA-2337, JA-2339; MS-654, MS-752,
 - MS-910
 - Oscillations
 - JA-1868, JA-2052, JA-2283
 - Raman
 - MS-674
- LATTICE THEORY
 - TR-252; JA-1867, JA-1885; JA-1913,
 - JA-2025; MS-94
- LEAD
 - Superconductivity
 - MS-551
- LEAD SULFIDE
 - JA-1808

Subject Index

- LEAD TELLURIDE
GR-85G-0011; JA-1785, JA-2263, JA-2270
- LEARNING
JA-1511, JA-1667, JA-1777, JA-1830A,
JA-1896, JA-1908, JA-2140; MS-84
- LEARNING MACHINES
MS-583
- LEGENDRE SEQUENCES
GR-34-71, GR-36G-0047
- LEMMAS
GR-52G-0020
- LENSES
Design
JA-2026
Eaton
TR-273
Lunenburg
TR-273, TR-277
- LIGHT PEN
TR-296; JA-1443
- LIGHT SOURCES
JA-2065
- LINCOLN LABORATORY
History
JA-1087
- LINCOLN WRITER
GR-51-8; JA-1057
- LINEAR SYSTEMS
Time-varying
GR-41G-6; JA-1307
- LITHIUM COMPOUNDS
JA-867
- LITHIUM HYDRIDE
JA-1144, JA-1145; JA-1173, JA-1249
- LOGISTICS
GR-22G-0071, GR-22G-1
- LORENTZ GROUP
JA-2240; Bib-22
- LOW ALTITUDE DETECTION
TR-161
- LUMINESCENCE
JA-2302, JA-2312
- LUNAR COMMUNICATION
GR-30G-0011; MS-25
- LUNAR REFLECTIONS
TR-187, TR-256, TR-288, TR-272;
GR-3G-0003, GR-3G-0004; JA-1108,
JA-1388, JA-1563, JA-1650A, JA-1748,
JA-1992, JA-1994, JA-1988, JA-2192,
JA-2252, JA-2262; MS-595, MS-645
- MACHINES (AUTOMATIC)
GR-54-4
- MACHINING
JA-2185
- MADISTER
JA-1981
- MAGNETIC AMPLIFIERS
JA-32, JA-238
- MAGNETIC CORES
TR-133, TR-164, TR-210, TR-247;
GR-2G-24-83, GR-52G-0014; JA-145,
JA-146, JA-373, JA-480, JA-566, JA-566A,
JA-1456; JA-78, JA-1301, MS-124
- MAGNETIC FIELDS
Coils
JA-522, JA-807
Detection
TR-202; JA-1376
Electrical conduction
JA-1302
Generation
JA-1078, JA-1354; JA-611
High frequency
JA-1556, JA-1884; MS-441
Quantum theory
JA-1357
- MAGNETIC FILMS
TR-278; GR-50-1, GR-51-2, GR-51-10,
GR-51-11; JA-1659, JA-1882, JA-1979,
JA-2324; JA-865, JA-1049, JA-1325,
JA-1384, JA-1433, MS-237, MS-680,
MS-913A, MS-917B, MS-952
- MAGNETIC MATERIALS
JA-315, JA-681, JA-862, JA-891, JA-1044,
JA-1077; JA-838
- MAGNETIC RESONANCE
TR-261; JA-1138; MS-257, MS-449
- MAGNETIC STORAGE
GR-53G-0059; JA-252, JA-480, JA-774,
JA-1799, JA-1910; MS-382
- MAGNETIC TAPE
JA-2231; JA-1039
- MAGNETISM
TR-267; JA-1600
Chemical bond
JA-1789
Non-metals
JA-1826

MAGNETOMETER

TR-202; JA-524, JA-1200, JA-1376;
JA-871

MAGNETOSTRICTION

TR-54

MAGNETRONS

TR-16; JA-9, JA-634, JA-639, JA-2176

MAGNETS

Heinsenbergl
 MS-843

Solenoid

JA-863

Superconducting

MS-394; Bib-18

MAN-MACHINE

JA-1714

MANGANESE COMPOUNDS

JA-1721; MS-353

MANGANESE OXIDE

JA-1570, JA-1338; JA-1180

MANGANESE PHOSPHIDE

JA-2136; MS-666

MANGANITES

JA-357

MANGANOUS FLUORIDE

TR-302; JA-772

MANGANOUS STANNATE

JA-1723

MARKOV PROCESSES

JA-592, JA-780, JA-1193

MARS

Reconnaissance vehicle

GR-31-148

MASERS

JA-1050, JA-1293, JA-1348, JA-1440;

JA-1412A, MS-144A, MS-179

Cyclotron resonant

MS-217

Infrared

GR-26G-1; JA-1888

Solid-state

JA-817, JA-896, JA-941, JA-959,

JA-977, JA-1002, JA-1074, JA-1321,

JA-1524, JA-1662, JA-1888, JA-2032,

JA-2139, JA-2149, JA-2184, JA-2197,

JA-2227, JA-2307; JA-933, MS-735,

MS-779B

MASS SPECTROSCOPY

TR-265, JA-1855, JA-2091

MATERIALS

Dynamic loads

GR-71G-2

MATHEMATICS

TR-2, TR-12, TR-14, TR-73, TR-95,

TR-123, TR-152, TR-182, TR-195,

TR-217; GR-22G-0046, GR-22G-0051,

GR-22G-0052, GR-22G-0061, GR-22G-3,

GR-25G-1, GR-28G-1, GR-28G-3,

GR-34G-1, GR-34G-5, GR-36-36,

GR-36G-0047, GR-41G-0011, GR-47-32,

GR-47-37, GR-47G-4, GR-52G-0013,

GR-52G-0020, GR-52G-5, GR-66G-1,

GR-81G-1; JA-37, JA-331, JA-381,

JA-446, JA-476, JA-488, JA-528, JA-534,

JA-581, JA-667, JA-780, JA-823, JA-983,

JA-1000, JA-1132, JA-1240, JA-1254,

JA-1381, JA-1578A, JA-1589, JA-1603A,

JA-1693, JA-1725, JA-1733, JA-1736,

JA-1737, JA-1741, JA-1773, JA-1790,

JA-1802, JA-1881, JA-1897, JA-1950,

JA-1985, JA-2012, JA-2021A, JA-2033,

JA-2075, JA-2099, JA-2120, JA-2124,

JA-2240, JA-2257, JA-2316, JA-2323

MATRIX ALGEBRA

TR-14, TR-217; GR-47-38, JA-1132,

JA-1657

MAUDE

GR-34-57, GR-34-72

MEASURE THEORY

GR-55G-0030

MEMORY

Psychological factors

GR-54G-0025; JA-1374, JA-1718

MEMORY DEVICES

TR-3, TR-133, TR-153, TR-247, TR-278;

GR-25G-0021, GR-312G-0006, GR-50-1,

GR-51-11, GR-51G-2, GR-52G-0018,

GR-52G-1, GR-53G-0039, GR-53G-0044,

GR-53G-0051; JA-46, JA-146, JA-1653,

JA-1659, JA-2324; JA-1164, JA-1301,

MS-42, MS-680, MS-913A, MS-952

MERCURY, PROJECT

MS-524, MS-525

MERCURY SELENIDE

JA-1549, JA-1775, JA-1828, JA-1951,

JA-2225; MS-199, MS-200, MS-201,

MS-268

MERCURY TELLURIDE

JA-2225; MS-200, MS-201, MS-268

MERCURY-SELENIUM

JA-1887

METALS

Interband transitions

JA-1820; MS-204

Thermodynamics

MS-665

Subject Index

METEOR ECHOES
TR-132; GR-30G-0003, JA-1832A

MICROBALANCE
JA-1552

MICROMETEORIDS
JA-2168

MICROSCOPES
Lorentz attachment
MS-601, MS-640
Microwave
GR-53G-0064

MICROWAVE DEVICES
JA-1821; JA-1478

MICROWAVE DISCHARGE
Shielding
MS-641

MICROWAVE EQUIPMENT
Bandwidth
TR-55

MICROWAVE SPECTROSCOPY
JA-1556, JA-2348

MICROWAVES
JA-1409

MIDAS
GR-25G-5

MILGO
GR-25G-0010, GR-25G-0025

MILLIMETER WAVES
Applications
GR-4G-0010, GR-82-8, GR-82-9,
GR-82G-0017, GR-82G-1; JA-1276;
JA-1219, MS-135, MS-141, MS-240,
MS-527

MINIMAX
TR-219

MISSILE TRAJECTORIES
GR-22G-0061, GR-312-17, GR-312G-5,
GR-312G-13

MISSILES
Miss-distance
GR-4G-0007

MODEL ATMOSPHERE
GR-22G-0004

MODULATION
TR-9; JA-914, MS-67

MODULATORS
Single-sideband
GR-48-6

MOLYBDENUM COMPOUNDS
JA-2219

MOLYBDENUM-PERMALLOY
JA-270

MOON
Radar cross sections
JA-2192
Surface measurements
MS-172, MS-595; Bib-19
Visibility charts
GR-52G-3

MOVING TARGET INDICATORS
TR-107, TR-171, TR-204; GR-45-34,
GR-45-34-1

MULTIPLEX EQUIPMENT
GR-65G-3

NEEDLES (See also West Ford)
Lifetimes
JA-1834
Specifications
GR-21G-0018, GR-21G-0019; JA-1738

NERVOUS SYSTEM
JA-1493; MS-509

NETWORK THEORY
TR-191; GR-25G-19; JA-979, JA-1193,
JA-1645, JA-1958, JA-2178A; Bib-9,
Bib-21; Q-3

NEURONS
Network activity
JA-1518A, JA-1518B, MS-292,
MS-482A

NEUTRONS
Scattering
TR-312; JA-160

NICKEL
JA-265

NICKEL ARSENIDES
MS-669

NICKEL COMPOUNDS
JA-1454; MS-671, MS-679

NICKEL-IRON FILMS
JA-2069, JA-2129; JA-1425, MS-132,
MS-238, MS-660, MS-917B, MS-918

NIOBIUM
JA-2005, JA-2238, JA-2276

NIOBIUM COMPOUNDS
JA-1863A, JA-1914; MS-512, MS-589

NIOBIUM-TIN WIRE
JA-1954; MS-594

NITROBENZENE
Raman scattering
JA-2264

NOISE
TR-7, TR-13, TR-158, TR-159;
GR-22G-0011, GR-22G-0035,
GR-22G-0043, GR-34G-8, GR-47G-7;
JA-334, JA-424, JA-546, JA-1194,
JA-2074, MS-704, MS-707
Gaussian
TR-75, GR-35G-10; JA-275, JA-1247
Mathematics
GR-46G-0009; JA-37, JA-42, JA-1729
Radio
JA-1579
Temperature
JA-1729

NOISE FILTERS
GR-22G-0024

NOMAC
TR-7, TR-33, TR-41, TR-57

NONLINEAR SYSTEMS
JA-1501, JA-1578A, JA-2033, JA-2060,
JA-2075, JA-2178A

NUCLEAR ATTACK
GR-22G-0071, GR-22G-1

NUCLEAR EXPLOSIONS
Detection
GR-34G-2; JA-2038, JA-2144

NUCLEAR MATTER
GR-81G-0022; JA-1770

NUCLEAR REACTORS
Q-2

NUMBERS THEORY
GR-47-34, GR-66G-1; JA-1870

OH GROUP
JA-2287, JA-2288, JA-2348

OPERA
GR-22G-0027

OPTICAL WINDOWS
JA-1878

OPTIMIZATION (See Adaptive Control)

ORDER-DISORDER THEORY
JA-1777

ORTHOMATCH
TR-346; JA-2064

OSCILLATORS
Backward wave
GR-48-7
Frequency-modulated
TR-11
One-MC
JA-999
Synchronization
TR-181

OXIDES
Preparation
JA-2137
Properties
Bib-10
Spectrographic analysis
JA-1704, JA-1907
Structure
JA-1447

OXYGEN
Neutron scattering
JA-160
Spectrum
JA-2009

OZONE
GR-32G-2

PACKAGING
JA-810, JA-1143A

PARAMAGNETIC RESONANCE
GR-82G-1; JA-1638, JA-2122

PARAMETRIC AMPLIFIERS
GR-21G-0016, GR-41G-1, GR-46-38,
GR-46-39; JA-1904, JA-2013, JA-2023;
MS-179, MS-632

PARAMETRIC ARRAYS
JA-2151

PARAMETRIC OSCILLATORS
MS-676

PARTICLE MECHANICS
JA-2278

PATTERN RECOGNITION
GR-34-43, GR-34-75, GR-54-9, GR-54-10,
GR-54-19, GR-54G-0022, GR-54G-0028;
JA-964, JA-1123, JA-1528, JA-1612,
JA-1613, JA-1619, JA-1654, JA-1711,
JA-1724, JA-1745, JA-1763, JA-1818;
JA-1544, MS-32, MS-626

Subject Index

- PAVEG
GR-22G-0012
- PERCEPTION
JA-1763, JA-1875, JA-2166A; JA-1314,
MS-89
- PERIODOGRAM
GR-47G-0025, GR-47G-0027; JA-1851
- PERMALLOY
JA-642, JA-1620, JA-1796, JA-1798,
JA-2050; JA-686, JA-870, JA-1111,
JA-1112, JA-1115, JA-1386, JA-1421,
JA-1486, MS-106, MS-127, MS-356
- PEROVSKITES
JA-357, JA-891, JA-1573
- PERSISTRON
JA-854
- PHASE CONTROL
JA-1242
- PHASE DETECTORS
GR-47G-0025
- PHASE INTEGRATORS
TR-189
- PHASE SHIFTERS
Ferrite
JA-92, JA-951; MS-180
UHF
TR-59, TR-176
- PHASE-LOCKED LOOPS
TR-246, GR-65G-5; JA-2106
- PHOENIX
TR-76
- PHONONS
GR-81G-0028, GR-81G-1; JA-2138
- PHOTOCONDUCTORS
Cadmium selenide
TR-223
Cadmium sulfide
TR-200, TR-223
- PHOTODIODES
JA-2043
- PHOTOGRAPHY
Electronic
Q-8
Microdensitometry
Q-9
Motion principle
Bib-4
- PHOTON DETECTORS
GR-25G-16; JA-2180
- PHOTON-ELECTRON SYSTEM
GR-22G-0034
- PHOTONS
JA-2112
- PIONEER V
GR-30G-0007
- PITCH
JA-1848, JA-1920, JA-2073; MS-513
- PLAN POSITION INDICATORS
TR-23, TR-104; JA-68
- PLASMA TORCH
JA-1678, JA-1744, JA-1937, JA-2049
- PLASMAS
Generation
MS-904
Induction
JA-2161
Non-linear effects
GR-25G-13; MS-845
Scattering
TR-284, TR-287; GR-312G-4,
GR-312G-8; MS-423
Semiconductor
JA-2293; MS-685
Solar
GR-52G-0017
Thermal
Bib-1
- PLASTICS
Spectrum analysis
Bib-2
- PLATING
JA-2185
- POISSON PROCESSES
GR-25G-16
- POLYMERS
JA-848
Spectrum analysis
Bib-2
- POLYNOMIALS
GR-28G-1, GR-28G-3, GR-47-24
- POLYURETHANE FOAMS
MS-272
- POTASSIUM CHLORIDE
JA-840
- POTASSIUM DIHYDROGEN PHOSPHIDE
Index of refraction
JA-2198
- POTENTIOMETERS
JA-2004
- POWER COMPARATOR
GR-47G-26; JA-1484
- POWER SPECTRUM
JA-2248

Subject Index

POWER SUPPLIES

TR-106

PRAESEDYMIUM OXIDES

JA-2179

PRECIPITATION

TR-112, TR-144

PRESSURE GAUGES

GR-46-47; JA-1862

PRINTED CIRCUITS

GR-51G-3, GR-51G-6; JA-735, JA-766,
JA-1691, JA-2094

Testing

GR-25G-7; JA-1143, JA-1189

PROBABILITY

TR-152; GR-55G-0031

PROJECT 861

GR-21G-2, GR-21G-3, GR-21G-4,
GR-21G-6, GR-21G-7

PSYCHOMETRICS

JA-158, JA-605, JA-1003, JA-1637,
JA-1663, JA-1681; MS-91

PULSE AMPLIFIERS

GR-51G-1, GR-51G-5

PULSE CODING

GR-312-12

PULSE COMPRESSION

TR-207; JA-1974; MS-548B

PULSE COUNTER

JA-53

PULSE GENERATORS

JA-2303

PULSE MODULATORS

GR-65G-4

PULSE TRANSFORMERS

JA-146

PULSE TRANSMISSION

GR-64G-3; JA-1209, JA-2292

QUANTUM ELECTRONICS

TR-344; JA-1538, JA-2349; MS-674,
MS-675, MS-676, MS-685, MS-735

QUANTUM MECHANICS

TR-310, GR-37G-1, GR-55G-0033;
JA-1103, JA-1749; MS-49

QUARTZ

Bib-16

QUEUEING

TR-73; GR-58-6; JA-1682, JA-1963; Bib-9

RADAR

2-Mcps

TR-101

10-CM

TR-56

70-CM

TR-56

108-Mcps

GR-315-3

AN/CPN-18

TR-63, TR-138

AN/FRC-47(XD-1)

TR-203; GR-36-44

Angular accuracies

GR-32-24

Arbuckle Neck

GR-21-0015, GR-312G-0004,

GR-312G-12

Array

JA-1892

Automatic-alarm

TR-24, TR-72

Backscatter

GR-1964-3

Bistatic

TR-82

CW

TR-82

Data processing

TR-67; JA-443; MS-61, MS-159

Display systems

TR-4

Doppler systems

TR-133; GR-34G-6, GR-41G-0004,

GR-47-19, GR-47-25, GR-47-29,

GR-47-33; JA-1561

Early warning systems

TR-72

Echo areas

TR-123, TR-158, TR-159

El Campo

TR-276

Fluttar

TR-82

Ground-wave

TR-101, TR-134

Haystack Hill

TR-324; MS-702

Interference

TR-3, TR-56, TR-178, GR-45-42

Subject Index

RADAR (Continued)

- L-band
 - TR-178
- Long-range
 - TR-228; MS-896
- Millstone
 - TR-272; GR-21G-6, GR-22G-0039,
GR-30G-0001, GR-30G-0002,
GR-30G-0004, GR-30G-0005,
GR-30G-0007, GR-30G-0009,
GR-30G-0011, GR-36G-2,
GR-41G-0004, GR-52-4; JA-1563;
JA-1128, JA-1423A
- Monopulse
 - GR-47G-7, GR-1964-11; JA-2142
- MTI
 - TR-107
- Output
 - GR-47G-0026
- Phased array
 - TR-228, TR-236, TR-299;
GR-41G-0012, GR-41G-0014,
GR-41G-1
- PRF
 - GR-43-2
- Pulse
 - TR-172; GR-47G-0019, GR-47G-0023
- Pulse cancellation
 - TR-119
- Pulse-doppler
 - TR-154
- Ranges
 - TR-318, TR-319; GR-312-26,
GR-47G-0013, GR-75-0005; JA-1700
- Resolution
 - TR-281; GR-1964-2; JA-2362
- Review
 - JA-2048
- Solar
 - TR-276; JA-1625, JA-2300
- Targets
 - GR-1964-2; JA-2362; MS-160
- Theory
 - JA-591, JA-724
- Tracking space vehicles
 - MS-86, MS-86A
- UHF
 - TR-305; GR-21G-0011
- Wallops Island
 - TR-305; GR-21G-0003, GR-21G-0005,
GR-21G-0006, GR-312G-12
- Waveforms
 - MS-831, MS-909
- X-3
 - TR-72
- X-band
 - GR-21G-0013, GR-312G-0002,
GR-315G-3

RADAR ASTRONOMY

- TR-234, TR-282; GR-34-84, GR-34G-0005,
GR-34G-4, GR-34G-6, GR-34G-12,
GR-312-23, GR-64G-4; JA-1698, JA-2096;
MS-172, MS-328; Bib-14

RADAR BEACONS

- GR-312G-0004; MS-524

RADAR CROSS SECTIONS

- JA-2156, JA-2291

RADAR RECEIVERS

- MS-179, MS-285

RADAR REFLECTORS

- MS-475A

RADAR SIGNALS

- Detection
 - TR-114; JA-482, JA-1194

RADIATION

- Atmosphere absorption
 - JA-1722

RADIATION EFFECTS

- JA-1813A

RADIATION HAZARDS

- JA-1369

RADIO ASTRONOMY

- TR-256, TR-272, TR-288; GR-47G-0018;
JA-1198, JA-1467, JA-2287, JA-2288

RADIO JAMMING

- TR-103; GR-65G-2

RADIO RECEIVERS

- TR-98; GR-47G-0018, GR-52G-0019;
JA-514

RADIO TRANSMISSION

- TR-37, TR-38, TR-93, GR-32G-2

RADIO WAVES

- Propagation
 - TR-81, TR-83, TR-84, TR-124,
TR-168, TR-190, TR-344;
GR-22G-0005, GR-36G-1, GR-47-38;
JA-541, JA-558, JA-2101, JA-2165
- Refraction
 - TR-186
- Scattering
 - TR-81, TR-84; GR-3G-0004,
GR-33G-0014, GR-1964-1; JA-397

RADIOACTIVE DECAY

- JA-10

RADIO-FREQUENCY PULSES

- Spectra
 - GR-41G-5

RADIOMETERS

- GR-47-30, GR-47G-0011; MS-343

Subject Index

RADIOMETRY

GR-34G-0003, GR-47-16; JA-1976,
JA-2349; MS-344

RADOMES

GR-71G-3, GR-71G-4, GR-76-5,
GR-76G-0003; JA-1133, JA-1183; JA-1148,
JA-1151, JA-1352A; MS-774; Bib-15-1,
Bib-15-2

RAMAN SCATTERING

JA-2264

RAMAN SPECTRA

Bib-16

RANDOM PROCESSES

JA-1615

RANDOM VARIABLES

GR-36G-36; JA-1555

RANDWORD

GR-25G-0008, GR-25G-7, GR-25G-10

RARE EARTH METALS

JA-1759, JA-1939; JA-838, MS-504

RARE EARTH OXIDES

JA-768, JA-1077, JA-1106, JA-2116

RAYDIST

GR-21G-0007

RE-ENTRY PHYSICS

Instrumentation

GR-21G-0004, GR-21G-0006,
GR-21G-0007, GR-21G-0009,
GR-21G-0013, GR-21G-0017; Bib-6

Parametric amplifiers

GR-21G-0016

Phenomena

MS-163

Real time clock

GR-21G-0009

Tracking

GR-21G-0005, GR-21G-0011,
GR-21G-0013, GR-312G-0001,
GR-312G-0004

Video recording

GR-21G-0004

Wakes

TR-266, TR-294

RE-ENTRY VEHICLES

Optical detection

GR-312G-7

Radar cross sections

TR-294; GR-21G-0015

RECOGNITION

MS-470

RECTIFIERS

TR-99

REDUNDANCY

GR-21G-0029, GR-21G-8001; JA-1853;
Bib-21

REFLECTOMETERS

JA-2223

RELIABILITY

JA-462; Bib-21

REPRODUCIBILITY

JA-532

RESINS

Spectrum analysis
Bib-2

RESONATORS

GR-48G-1

RHODIUM OXIDE

JA-2116

SAGE

Data transmission

GR-2G-25-4, GR-2G-25-12,
GR-32-105; JA-649, JA-900; JA-879

Display console

TR-237

Review

JA-878

Tracking

JA-1072

SAINT

GR-5G-0001

SAMPLING

JA-1032, JA-1415

SATELLITE TRAJECTORIES

GR-21G-1, GR-22G-10

SATELLITES

Cylindrical

JA-2128

Effect of sunlight

JA-2128

Orbits

GR-21G-4, GR-21G-6, GR-21G-0019,
GR-21G-0027, GR-21G-0028,
GR-22G-0012, GR-22G-0027,
GR-22G-0038, GR-22G-0052,
GR-22G-6, GR-36G-3; JA-1313A,
JA-1810

Subject Index

SATELLITES (Continued)

- Perturbations
 - Bib-7, Bib-23
- Radar tracking
 - GR-22G-0018, GR-22G-0021,
GR-22G-0039; JA-903; JA-1128,
JA-1423A
- U.S.S.R.
 - JA-903

SCATTERING THEORY

- GR-55G-0033; JA-2099

SCIENCE

- Basic
 - JA-2232
- Education
 - JA-1941
- History
 - JA-1998

SEA CLUTTER

- TR-56, TR-83, TR-134, TR-204; JA-2165;
JA-950

SECO

- MS-448

SECONDARY EMISSION

- TR-257; GR-46G-0006

SEISMIC WAVES

- GR-1964-15

SEISMOMETERS

- GR-64G-6

SEMI-METALS

- GR-8G-0012, GR-81G-0022; JA-1860,
JA-2039

SEMICONDUCTOR-DIODES

- GR-47G-3

SEMICONDUCTORS

- Applications
 - JA-843, JA-2249
- Boltzmann theory
 - TR-136
- Chemistry
 - MS-519
- Cyclotron resonance (see under cyclotron)
- Dielectric relaxation
 - JA-36
- Dislocations
 - JA-416
- Energy-band
 - TR-295; JA-1965; MS-208
- Etching
 - TR-293; JA-1510, JA-2092; JA-1385
- Faraday rotation
 - JA-1750

Galvano-thermomagnetic effects

- JA-1860, JA-2039

Homogeneity

- JA-1893

Impurities

- JA-1758, JA-2282; JA-1036, JA-1451,
MS-241

Light emission

- JA-2158

Low temperature

- JA-995

Magneto-optical effects

- TR-249; GR-84-4, GR-85G-0008,
GR-85G-0011; JA-875, JA-1085,
JA-1086, JA-1149, JA-1338, JA-1431,
JA-1775, JA-1795, JA-2035, JA-2143A;
JA-958, JA-994, JA-1012A, JA-1034,
MS-22, MS-453, MS-455

Mass measurements

- MS-456

Metallurgy

- JA-1536

Noise

- JA-54, JA-370, JA-422

P-N junction

- TR-18; JA-2158

Plasma oscillations

- JA-299, JA-2056; MS-457

Reviews

- JA-1565A

Surfaces

- JA-230, JA-549, JA-1155, JA-1510,
JA-1367, JA-1565A, JA-1601, JA-1709,
JA-1819, JA-1915; JA-569, JA-570,
JA-575, JA-602, JA-1375; MS-24

Thermodynamics

- JA-2086

Transport theory

- JA-1542; MS-451

SEQUENCES

- TR-20, TR-114; GR-22G-0055, GR-25G-2,
GR-34G-0006, GR-47-37, GR-51G-0018,
GR-55-22, GR-55G-0024, GR-55G-2,
GR-62G-4, GR-62G-5, GR-65G-6; JA-264,
JA-939, JA-1990, JA-2209; MS-159

SEQUENTIAL MACHINES

- Algorithms
 - TR-270

SHELLS

- GR-75G-0002; MS-447A

SHIFT REGISTERS

- TR-32; JA-1382

SHIP STABILIZATION

- Bib-11

SHIPS

Detection
TR-101

SHOCK WAVES

JA-2

SHOTPUT BALLOON

GR-30G-0001, GR-30G-0002, GR-30G-0004,
GR-33G-9

SICOSAS

GR-21G-8, GR-62G-3

SIGNAL-TO-NOISE RATIO

TR-13, TR-22, TR-35, TR-99; GR-32G-26,
GR-34G-9, GR-47G-0007, GR-47G-0015,
GR-47G-0016, GR-47G-0027, GR-64G-1;
JA-72, JA-384, JA-456, JA-647

SIGNALS

Correlation techniques

TR-7, TR-21, TR-33; GR-34G-4,
GR-1964-4; JA-686, JA-707, JA-747,
JA-787, JA-1805, JA-2251; JA-912

Design

GR-36G-42, GR-41G-0009; JA-1201,
JA-2297; MS-161

Detection

TR-7, TR-13, TR-20, TR-21, TR-33,
TR-35, TR-92, TR-258, TR-325;
GR-22G-2, GR-28G-3, GR-32-25,
GR-32-26, GR-34G-0008, GR-34G-7,
GR-47G-36, GR-47G-0007, GR-47G-0015,
GR-47G-0016, GR-47G-2, GR-64G-1;
JA-72, JA-410, JA-617, JA-881,
JA-897, JA-1253, JA-1610

Frequency control

GR-41G-0008

FSK

GR-65G-2

Interference

TR-34; GR-25G-0004

Noise-like

TR-7, TR-116; JA-1680

Quantizing

JA-1307A

Stochastic

GR-34G-0008; JA-1610

Storage

TR-33

Telegraphic

JA-1193

VHF

TR-21

Visual

TR-47

SILICON

Dislocations

TR-85

Impurities

GR-84-4; JA-1516, JA-1521, JA-1872,
JA-1944

Optical properties

JA-845, JA-1944

Properties

JA-137, JA-394, JA-449, JA-517,
JA-628, JA-791, JA-1269A, JA-1515

Quantum effects

JA-1928; MS-203, MS-479

Structure

JA-208, JA-209, JA-272, JA-1547

Tellurium doping

JA-588

SIMPLEX SYSTEM

GR-22G-0025, GR-22G-0053, GR-22G-0071

SINGLE CRYSTALS

TR-71, TR-303, TR-312; JA-365, JA-418,
JA-507, JA-512, JA-1134, JA-1338,
JA-1708, JA-1720, JA-1812, JA-1929,
JA-1943, JA-2296; JA-857, MS-126,
MS-666, MS-895

SKETCHPAD

TR-296

SLOWED-DOWN-VIDEO (SDV)

TR-61, TR-100; GR-2G-24-83

SOLAR PLASMAS

GR-52G-0017

SOLAR RADAR

JA-1824, JA-2357; MS-433, MS-521

SOLAR RADIATION PRESSURE

MS-267

SOLAR SYSTEM

JA-1760

SOLAR WIND

JA-2300

SOLID SOLUTIONS

MS-347

SOLID STATE DEVICES

JA-1794

SOLID STATE ELECTRONICS

JA-636

SOLID STATE PHYSICS

Bibliography

TR-74

Crystal impurity levels

JA-148, JA-218

Electron scattering

JA-159, JA-1542

Subject Index

SOLID STATE PHYSICS (Continued)

- Electronic motions
TR-345; JA-124, JA-227, JA-369,
JA-447, JA-773, JA-1497, JA-1546A,
JA-1594, JA-1833, JA-1935; MS-94,
MS-363, MS-940, MS-941
- Entropy
GR-81G-0026, GR-81G-0030; JA-1746

SOLIDS

- Adsorption
JA-831
- Band structure
JA-743; MS-208
- Electron bombardment
TR-268; MS-644
- Faraday effect
JA-2193; MS-270
- Harmonic generation
JA-2062
- Ionic
JA-1424
- Machine perception
TR-315
- Magnetoplasma reflection
JA-1490; MS-45
- Melt interface
JA-2036
- Non-linear effects
JA-2000
- Optical properties
JA-1556
- Plasma effects
JA-1901
- Raman spectra
Bib-16
- Surface temperature
TR-268

SONAR EQUIPMENT

- GR-47G-0003

SOUND

- Propagation in helium
JA-1021, JA-1229, JA-1318

SPACE CHARGES

- JA-16, JA-634, JA-639, JA-849

SPACE COMMUNICATIONS

- JA-2249; JA-1350

SPACE VEHICLES

- Control systems
GR-22G-8, GR-22G-9
- Radar tracking
MS-86, MS-87
- Recovery
Bib-6

SPANDAR

- GR-312G-12

SPARK-EROSION CUTTING

- TR-303

SPECTROGRAPHIC PLATES

- JA-1835

SPECTROMETERS

- JA-1664; GR-82G-1

SPEECH

- Intelligibility
JA-228, JA-1702, JA-2059

SPEECH COMPRESSION

- GR-36-41, GR-62G-1; JA-2334

SPEECH SYNTHESIS

- JA-1726

SPHERES

- Backscattering
GR-22G-16; JA-1340, JA-1772,
JA-1959, JA-1967, JA-2130A

SPHEROIDS

- GR-25G-0002

SPIN WAVE RESONANCE

- TR-239; GR-82G-0029; JA-1105, JA-1298,
JA-1373, JA-1631, JA-1646, JA-1677,
JA-2141, JA-2277; JA-1116, JA-1472;
MS-40, MS-121, MS-237

SPINELS

- TR-267; JA-213, JA-1290, JA-1426,
JA-1426A, JA-1816, JA-1927, JA-2272;
MS-14, MS-133, MS-362, MS-943
- Chromium
JA-2117A; MS-227, MS-662
- Manganese
JA-1044
- Vanadium
TR-269; JA-1973A

SPLAT

- GR-21G-0003

SQUARE ROOTS

- Circuits
JA-1958

STATISTICAL ANALYSIS

- TR-34, TR-92, GR-34G-7, GR-54G-0021;
JA-534, JA-1051, JA-1415, JA-1555,
JA-1960

STATISTICAL DETECTION

- JA-338

STEREOSCOPIC EFFECTS

- JA-1717

STOCHASTIC PROCESSES

- TR-219; JA-1817, JA-1895, JA-1978,
JA-1982, JA-2044, JA-2148, JA-2159,
JA-2228; MS-170A

Subject Index

STORAGE TUBES

TR-61

STRIP TRANSMISSION LINES

GR-41G-0014; JA-519

SUPERCONDUCTIVITY

GR-46G-0013; JA-287, JA-1477, JA-1658,
JA-1728, JA-1781, JA-1791, JA-1840,
JA-1863A, JA-1914, JA-1972, JA-2005,
JA-2103, JA-2170, JA-2234, JA-2235,
JA-2260, JA-2265, JA-2276; MS-112,
MS-301, MS-394, MS-512, MS-551, MS-556,
MS-589, MS-591, MS-594, MS-881, MS-958,
Bib-18

SWEEP INTEGRATION

TR-119

SWITCHES

Coaxial

TR-170

RF

TR-141

TR

TR-146

UHF

TR-146

SWITCHING CIRCUITS

TR-27, TR-110, TR-120, TR-130, TR-226,
TR-247; GR-312G-0006; JA-14, JA-61,
JA-97, JA-577, JA-1197, JA-1241;
JA-1174

SYSTEMS ANALYSIS

GR-54-5; JA-592

TABLES

N log

TR-60

Scattering

GR-22G-16

Tangent rays

GR-22G-0005

TELEMETRY SYSTEM

TR-343

TELEPHONE SYSTEMS

GR-24G-54, GR-25G-0003, GR-25G-0010,
GR-25G-0012, GR-25G-0024, GR-25G-0025,
GR-25G-0028, GR-25G-4, GR-25G-5,
GR-25G-14, GR-25G-15, GR-32G-105;
JA-1963, JA-1971, JA-2113; JA-1317,
MS-56, MS-173, MS-560

TELETYPE SYSTEMS

TR-9; GR-21G-0009, GR-25G-0014,
GR-25G-3, GR-25G-14, GR-25G-15

TELETYPE TAPE

Specifications

GR-21G-0022, GR-21G-0024

TELEVISION

Bandwidth reduction

GR-51G-0021

Motion principle

Bib-4

Techniques

JA-1093; Q-4

TELLURIDES

JA-1674, JA-2270, JA-2285, JA-2328

TERRAIN

GR-36G-1; JA-2101

THERMISTERS

JA-657

THERMOELECTRICITY

JA-2068, JA-2162

THIN FILMS

Magnetic properties

TR-197, TR-239; GR-82G-0029;
JA-576, JA-642, JA-906, JA-1022,
JA-1210, JA-1288, JA-2066; JA-861,
JA-865, JA-868, JA-1049, JA-1164,
JA-1325, MS-42, MS-630; Bib-3

THOUGHT

JA-1830A

THUNDERSTORMS

JA-1831; MS-567

THYRATRONS

JA-58, JA-382

TIN

Superconductivity

MS-556

TIN OXIDE

JA-1704, JA-1852, JA-2122

TIN TELLURIDE

JA-1957, JA-2068, JA-2275, JA-2285,
JA-2328

TIROS I

GR-30G-0005

TITANIUM

JA-243

TITANIUM OXIDE

JA-1429

TRACKING

Automatic range

TR-318; GR-21G-0005

Mathematics

TR-14; GR-22G-0061

Subject Index

- TRACKING LOOP
GR-30G-0010
- TRAILBLAZER I
TR-294; GR-312G-0001, GR-312G-0004,
GR-312G-7
- TRAILBLAZER II
GR-312G-5
- TRANSDUCERS
GR-47G-0014; JA-913, MS-892
- TRANSFORMERS
Toroidal RF
JA-1752
- TRANSISTORS
TR-133
Applications
TR-98, TR-100, TR-106, TR-110,
TR-120, TR-130, TR-133, TR-156;
GR-62G-2; JA-178, JA-514, JA-566,
JA-577, JA-992, JA-1209, JA-1242,
JA-1382, JA-2043
Bibliography
TR-74
Circuits
TR-25, TR-27, TR-32, TR-177; JA-6,
JA-14, JA-49, JA-921, JA-1767;
JA-1301; Q-3
Flip-Flops
JA-298
Junctions
JA-87, JA-91, JA-97, JA-131, JA-298
Reliability
TR-199, TR-221
Silicon
TR-177
UHF
JA-2108
VHF
TR-286
- TRANSITION ELEMENT OXIDES
Optical properties
JA-1338
- TRANSITION METALS
Band structure
TR-208; JA-1628
Wave functions
JA-866
- TRANSMISSION LINES
TR-26, TR-68; GR-46G-0002, GR-46G-0010;
JA-64, JA-979, JA-1097, JA-1986
- TRANSPONDERS
JA-1587
- TRANSPORTATION
Bib-9
- TRANSWORD
GR-25G-0019
- TRAVELING WAVE RESONATOR
GR-46-48, GR-46G-0007; JA-1652
- TRAVELING WAVE TUBES
GR-47G-0011, GR-48-8
- TRINIDAD
JA-2087
- TRIODES
JA-430
- TROPOSPHERE
Water vapor
JA-886
- TROPOSPHERIC SCATTER
TR-37, TR-38, TR-84, TR-151, TR-183,
TR-259; GR-25G-9, GR-33G-0015,
GR-36G-25; JA-127, JA-216, JA-320,
JA-421, JA-752, JA-978, JA-1655,
JA-1861; Bib-12
- TUNNELING
GR-52G-0018, GR-81G-0034; JA-1653,
JA-1869, JA-2234, JA-2235; MS-205
- ULTRASONIC ABSORPTION
Q-7
- ULTRASONIC BEAMS
JA-23
- ULTRASONIC DELAY LINES
TR-42, TR-160; JA-46, JA-911; JA-1163
- ULTRASONIC DETECTOR
MS-762
- ULTRASONICS
JA-1556, JA-2153, JA-2286
- ULTRAVIOLET INSTRUMENTS
JA-2223, JA-2224
- UNDERGROUND TESTING
GR-34G-2
- U.S.S.R.
Artificial intelligence
Bib-8
Technical publications
Bib-13

VACUUM SYSTEMS

JA-2133, JA-2171, JA-2157; Q-5

VANADIUM

JA-1648

VANADIUM OXIDES

JA-1429, JA-1430, MS-351

VARACTORS

GR-47G-0012, GR-47G-5; JA-1903,
JA-1987, JA-2023, JA-2233, JA-2351,
JA-2355

VARIABLES

GR-58-2, GR-58G-0013

VELOCITY

Radar measurement
JA-1700

VENUS

Radar echoes
GR-21G-7, GR-34G-12, GR-64G-4;
JA-1243, JA-1597, JA-1919, JA-2053,
JA-2182, JA-2252; MS-487

VISUAL ACUITY

GR-58G-0018; JA-262, JA-1644, JA-1769A,
JA-1822, JA-2088; MS-626

VISUAL DISPLAYS

TR-49
Color coding
JA-261

VISUAL MONITORING

TR-47; JA-683, JA-1877

VISUAL SEARCH

JA-2199

VOCODER

GR-62G-1; JA-2019

VOICE TRANSMISSION

GR-65G-1

WAKES

Hypersonic
TR-342; JA-2104, JA-2289
Ionized
TR-266; GR-312G-10
Turbulent
GR-312G-3

WALLOPS ISLAND

GR-21G-0003, GR-21G-0004, GR-21G-0006

WAVEGUIDE WINDOWS

GR-46G-0003

WAVEGUIDES

Anisotropic obstacles
JA-884, JA-1340
Cylindrical
TR-313
Hybrid junctions
TR-28, TR-255
Magnetohydrodynamic
TR-304
Polarization
GR-46G-3, GR-61G-1
Rectangular
TR-89, TR-174; JA-92, JA-342;
JA-317
Shorting plungers
GR-315G-0001
Shunt devices
GR-46G-1

WEIGHT-TO-DRAG RATIO

GR-47G-6

WEST FORD (see also NEEDLES)

TR-251, TR-259, TR-343, GR-21G-0022,
GR-21G-0024, GR-21G-0026, GR-21G-0027,
GR-21G-0028, GR-21G-0031, GR-62G-8;
JA-2175, JA-2317-1-11

WILDCATTING

TR-3

WIRING

GR-51G-3

YTTRIUM IRON GARNET

GR-53G-0065

ZERO-CROSSING

JA-1093

ZINC

Chemical analysis
JA-348

ZINC OXIDE

JA-1980

DOCUMENT CONTROL DATA - R&D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1. ORIGINATING ACTIVITY (Corporate author) Lincoln Labs., Lexington, Mass.		2a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED	
		2b. GROUP N/A	
3. REPORT TITLE Unclassified Publications of Lincoln Laboratory			
4. DESCRIPTIVE NOTES (Type of report and inclusive dates)			
5. AUTHOR(S) (Last name, first name, initial)			
6. REPORT DATE Mar 64		7a. TOTAL NO. OF PAGES 209	7b. NO. OF REFS 0
8a. CONTRACT OR GRANT NO. AF19(628)500		9a. ORIGINATOR'S REPORT NUMBER(S) ESD-TDR-64-340	
b. PROJECT NO.		9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)	
c.			
d.			
10. AVAILABILITY/LIMITATION NOTICES Qualified Requesters May Obtain From DDC. Aval from OTS.			
11. SUPPLEMENTARY NOTES		12. SPONSORING MILITARY ACTIVITY ESD, L.G. Hanscom Field, Bedford, Mass.	
13. ABSTRACT Unclassified Publications of Lincoln Laboratory, 15 March 1964, is a new cumulative listing of unclassified reports since the Laboratory was established in 1951. The 15 July 1964 edition of Unclassified Publications, as well as Supplements 1, 2, and 3, may now be destroyed. A Subject Index, included for the first time in this edition, should prove a valuable aid to the reader. Progress Reports, Technical Reports and Group Reports listed herein are deposited with DDC. Out-of-print unclassified (released) reports are available, as microfilm or photoprint copies, from the Microreproduction Laboratory, Hayden Memorial Library, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139. Requests should cite the appropriate serial numbers and prices.			

14.

KEY WORDS

LINK A

LINK B

LINK C

ROLE

WT

ROLE

WT

ROLE

WT

Documentation
Catalog
Publications

INSTRUCTIONS

1. **ORIGINATING ACTIVITY:** Enter the name and address of the contractor, subcontractor, grantee, Department of Defense activity or other organization (*corporate author*) issuing the report.

2a. **REPORT SECURITY CLASSIFICATION:** Enter the overall security classification of the report. Indicate whether "Restricted Data" is included. Marking is to be in accordance with appropriate security regulations.

2b. **GROUP:** Automatic downgrading is specified in DoD Directive 5200.10 and Armed Forces Industrial Manual. Enter the group number. Also, when applicable, show that optional markings have been used for Group 3 and Group 4 as authorized.

3. **REPORT TITLE:** Enter the complete report title in all capital letters. Titles in all cases should be unclassified. If a meaningful title cannot be selected without classification, show title classification in all capitals in parenthesis immediately following the title.

4. **DESCRIPTIVE NOTES:** If appropriate, enter the type of report, e.g., interim, progress, summary, annual, or final. Give the inclusive dates when a specific reporting period is covered.

5. **AUTHOR(S):** Enter the name(s) of author(s) as shown on or in the report. Enter last name, first name, middle initial. If military, show rank and branch of service. The name of the principal author is an absolute minimum requirement.

6. **REPORT DATE:** Enter the date of the report as day, month, year; or month, year. If more than one date appears on the report, use date of publication.

7a. **TOTAL NUMBER OF PAGES:** The total page count should follow normal pagination procedures, i.e., enter the number of pages containing information.

7b. **NUMBER OF REFERENCES:** Enter the total number of references cited in the report.

8a. **CONTRACT OR GRANT NUMBER:** If appropriate, enter the applicable number of the contract or grant under which the report was written.

8b, 8c, & 8d. **PROJECT NUMBER:** Enter the appropriate military department identification, such as project number, subproject number, system numbers, task number, etc.

9a. **ORIGINATOR'S REPORT NUMBER(S):** Enter the official report number by which the document will be identified and controlled by the originating activity. This number must be unique to this report.

9b. **OTHER REPORT NUMBER(S):** If the report has been assigned any other report numbers (*either by the originator or by the sponsor*), also enter this number(s).

10. **AVAILABILITY/LIMITATION NOTICES:** Enter any limitations on further dissemination of the report, other than those

imposed by security classification, using standard statements such as:

- (1) "Qualified requesters may obtain copies of this report from DDC."
- (2) "Foreign announcement and dissemination of this report by DDC is not authorized."
- (3) "U. S. Government agencies may obtain copies of this report directly from DDC. Other qualified DDC users shall request through _____."
- (4) "U. S. military agencies may obtain copies of this report directly from DDC. Other qualified users shall request through _____."
- (5) "All distribution of this report is controlled. Qualified DDC users shall request through _____."

If the report has been furnished to the Office of Technical Services, Department of Commerce, for sale to the public, indicate this fact and enter the price, if known.

11. **SUPPLEMENTARY NOTES:** Use for additional explanatory notes.

12. **SPONSORING MILITARY ACTIVITY:** Enter the name of the departmental project office or laboratory sponsoring (*paying for*) the research and development. Include address.

13. **ABSTRACT:** Enter an abstract giving a brief and factual summary of the document indicative of the report, even though it may also appear elsewhere in the body of the technical report. If additional space is required, a continuation sheet shall be attached.

It is highly desirable that the abstract of classified reports be unclassified. Each paragraph of the abstract shall end with an indication of the military security classification of the information in the paragraph, represented as (TS), (S), (C), or (U).

There is no limitation on the length of the abstract. However, the suggested length is from 150 to 225 words.

14. **KEY WORDS:** Key words are technically meaningful terms or short phrases that characterize a report and may be used as index entries for cataloging the report. Key words must be selected so that no security classification is required. Identifiers, such as equipment model designation, trade name, military project code name, geographic location, may be used as key words but will be followed by an indication of technical context. The assignment of links, rules, and weights is optional.